MacWEEK

07.22.96 | *The Newsweekly for Macintosh Managers* | VOLUME 10 NUMBER 28

See Reviews, Page 25

PowerTower Pro series soars above Mac rivals

By Henry Norr

Power Computing Corp. has been shipping systems that were faster and less expensive than Apple's for the past year, but there has always been something to justify sticking with Apple-branded hardware. Initially the price/performance advantages of the Power machines were only marginal; then, last winter, there were problems with the company's service, support and stability; then, with the PowerTower line, there were confusing technical trade-offs.

REVIEW

But with the release this week of a high-end series called PowerTower Pro, we don't see much room for argument: The $4,195 PowerTower Pro 180, $4,495 PowerTower Pro 200 and $4,995

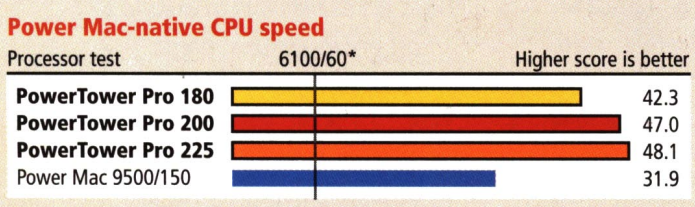
See PowerTower, Page 67

MACWEEK MACBENCH 3.0 LABS

PowerTower Pro line

With PowerPC 604e processors running at up to 225 MHz, plus expanded Level 2 caches, the new PowerTower Pro line lifts Mac OS performance to unprecedented heights.

Power Mac-native CPU speed



Test configurations: See benchmarks, Page 67.

*MacBench 3.0's score compares speed to a Power Mac 6100/60, which receives a 10.

Performas due for leap to 200 MHz

By Joanna Pearlstein

The Performa formerly known as Instatower will be among the ensemble cast of stars debuting at Macworld Expo in August.

Sources said the Instatower, a tower-shaped Performa with two PCI slots, will ship at the expo in Boston under the moniker Performa 6400 and cost between $2,400 and $3,000.

The 6400 will reportedly be available in versions that include 180- and 200-MHz PowerPC 603e processors. The latter system will be the first Apple machine to reach the 200-MHz mark.

About the size of a Power Mac 9500, the 6400 will reportedly include two 7-inch PCI slots; a digital audio-video (DAV) slot; and a PCI-based communications slot, which may house a 28.8-

See Performa, Page 73

Apple eases loss by cutting costs

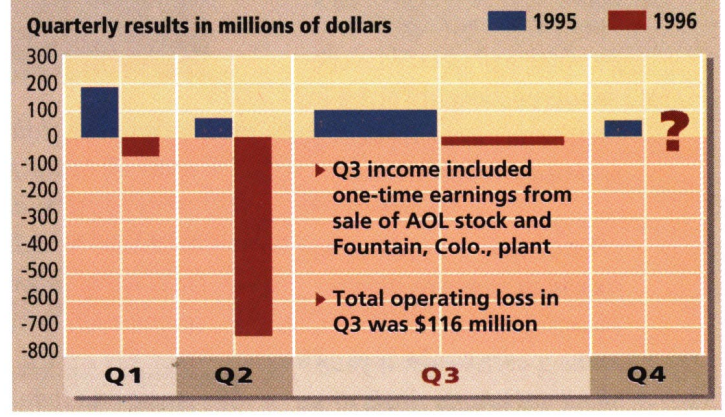
By Leander Kahney

Confounding expectations, Apple last week announced a loss of $32 million for the third quarter of 1996 — markedly lower than Wall Street predictions.

Revenues for the fiscal quarter ended June 28 were $2.18 billion, a drop of about 15 percent from the $2.58 billion reported for the same period last year. The company said it shipped 837,000 Macintosh units, also down from the year-ago tally.

See Results, Page 68

Tracking Apple's year in the red



Rechristened Live Objects, OpenDoc will debut anew

By Clifford Colby

Apple is putting the finishing touches on its belated coming-out party for OpenDoc. And, as part of the August festivities planned for Macworld Expo in Boston, the user portion of the component architecture will be renamed Live Objects.

"It was important, now that end-user products are becoming available, to have the name of the products define what they are," said Gina Centoni, Apple OpenDoc product line manager. "The Live Objects name is much more descriptive."

But the technology itself will remain named OpenDoc. For example, Cyberdog, Apple's Internet-access tools, will comprise 32 Live

See OpenDoc, Page 70

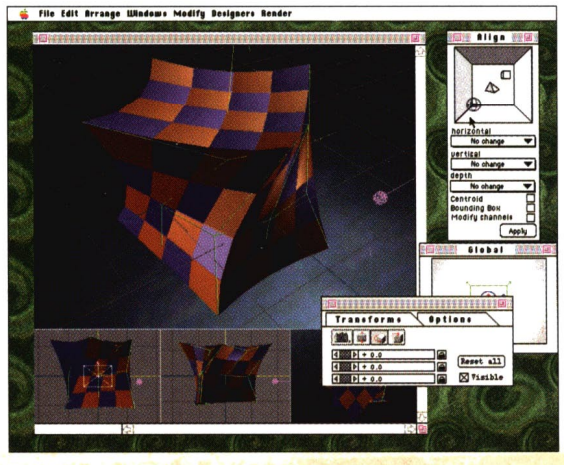
Vertigo leaping to Mac, porting 3-D app from SGI

By Kelly Ryer

Serious Mac 3-D fans will get anything but a sinking feeling this fall. Longtime Silicon Graphics developer Vertigo Technology Inc. will announce a Power Macintosh version of its Vertigo 3D software at August's Siggraph 96 conference in New Orleans.

The Mac version of Vertigo 3D, due in November for less than $800, will offer all the features of the SGI version, the company said.

See Vertigo, Page 68



New twist on an old app: SGI stalwart Vertigo Technologies will step up to the Mac platform. All the features of Vertigo's 3-D modeling, rendering and animation program will be in the Power Mac version.

Dual-604e card to lead off MP flurry at expo

By David Morgenstern

Seeking a wider audience for higher horsepower, several vendors will step forward in August at Macworld Expo in Boston with new multiple-processor products.

DayStar Digital Inc. of Flowery Branch, Ga., said it will release its nPower 360+, a daughtercard upgrade that contains a pair of 180-MHz 604e processors. Priced at $1,499, the card will be compatible with several PCI Mac models, including the Power Mac 7500, 8500 and 9500.

In addition to the Apple systems, DayStar said the dual-processor card will work in UMAX Computer Corp.'s recently released SuperMac S900L

See MP, Page 70

NEWSPAPER PERIODICALS

"Its excellent features and fantastic reliability make FirstClass shine as the premier groupware application."
MACUSER, 01/95

"I can't stress how much a well-designed system like FirstClass, especially with its sophisticated conference features, can boost productivity over simple e-mail."
RAYMOND G.A. COTE, BYTE MAGAZINE

"FirstClass delivered excellent performance throughout our tests... we didn't have a single server crash or system error on the system we left running for well over three months, with daily logins from more than 100 users."
MACWEEK, 05/95

"A complete electronic mail, group conferencing, and database access package that provides sophisticated workgroup functionality in an easy-to-use graphical environment."
CANADIAN COMPUTER RESELLER

"FirstClass is a bargain for its e-mail strengths alone. Powerful communications tools make it even better. If your small workgroup needs to connect, communicate, and collaborate... check out SoftArc's FirstClass 3.0."
PC/COMPUTING, 02/96

"FirstClass crosses communication categories by integrating features usually found in three or more products. It offers easy administration and a wide range of useful functions, and has a mature, well-thought-out infrastructure."
WINDOWS MAGAZINE

"Perhaps the best client/server messaging implementation out there... an excellent product."
FERRIS MESSAGING ANALYZER

"We at A&M studios are thoroughly enjoying our FirstClass system, and in fact, business could not go on without it here."
A&M STUDIOS, LOS ANGELES

"FirstClass from SoftArc offers a refreshing alternative to the mantra of concerns about managing workgroup environments. It offers workgroup communication capabilities at a competitive price, with low system overhead."
WORKGROUP COMPUTING REPORT, PATRICIA SEYBOLD GROUP

THEY FORGOT HUMBLE.

"You've blown the socks off of our previous e-mail system and have brought a new era of intercommunication to our organization that has earned us a ton of praise and thanks."
CHALLENGER CENTER FOR SPACE SCIENCE EDUCATION

"FirstClass has an appealing price, is extremely easy to install, and requires a near-zero learning effort. FirstClass should definitely be considered in procurement evaluation plans of organizations with simple groupware needs."
THE MESSAGING TECHNOLOGY REPORT, THE RADICATI GROUP, VOLUME 5, NUMBER 1

"FirstClass blends conferencing and mail together under a remarkably clean interface that goes far beyond the capabilities of most mail systems."
RAYMOND G.A. COTE, BYTE MAGAZINE

"Analysts and users applaud FirstClass for its ease of installation, administration, and its low cost."
INFORMATION WEEK

"What makes FirstClass so attractive is the fact that using it simply creates another desktop on top of your own computer desktop. It is a familiar world of files, folders, click and double click. It is graphical, straightforward, and intuitive."
TIMES EDUCATIONAL SUPPLEMENT, SCOTTISH EDITION

"SoftArc's FirstClass is an excellent product, with many features that are very attractive to both users and support staff. FirstClass deserves success in large organizations. The new FirstClass Server for Windows should be a big help in this regard; previously you needed a Mac-based server, which doesn't work for many user departments. FirstClass is a system worthy of evaluation for corporate-wide, diverse communication needs."
DAVID FERRIS, FERRIS RESEARCH E-MAIL ANALYST FIRM

"We are using FirstClass at the Prime Minister's office. After that, other institutions have been inspired. In just a few months, thousands of FirstClass copies were spread over the country."
CARL BILDT, FORMER PRIME MINISTER OF SWEDEN

"FirstClass is an excellent product. Its reliability astounds me. We have had no end of trouble with our QuickMail system, yet FirstClass never misses a beat–and we have it running on an old spare 128 upgraded to a Plus, with only 1 MB of RAM. I would thoroughly recommend it to anyone."
ADVANCED COMMUNICATIONS, NELSON, NEW ZEALAND

"Our experience with [FirstClass] has been great. FirstClass has provided reliable e-mail, gateways between our Canada-wide offices, an Internet gateway, and a newly installed fax gateway. It also does group conferencing and replication of text databases and discussions... no consultants to get us up and running; we figured this one out ourselves."
DOUG ALDER, EDITOR, THE COMPUTER PAPER

"FirstClass does everything. Not only does its implementation of e-mail include all the features you could want, it also offers conferencing and bulletin board facilities. The software is comprehensive and flexible enough to expand to most organizations' needs."
MACUSER UK

"FirstClass' workgroup capabilities enable teams gathered from several different continents and time zones to work concurrently on projects."
JACK RANIERI, TSB INTERNATIONAL

"I just wanted you to know how pleased we are with FirstClass. Your system meets all of the requirements my users had. It seems to have been made for them and has good response times. I congratulate your company on a job well done and I look forward to using FirstClass for a long time."
MICHELLE HART, AYUDA NETWORK, MARIANA ISLANDS

FOR MORE INFORMATION ABOUT FIRSTCLASS CLIENT/SERVER MESSAGING, CALL 1-800-SOFTARC OR VISIT OUR WEB SITE AT www.softarc.com

SoftArc Inc., 1902 Ridge Road #325, West Seneca, New York, 14224. Tel 905-415-7000 Fax 905-415-7151 or info@softarc.com. "FirstClass" is a trademark of SoftArc Inc. "QuickMail" is a trademark of CE Software Inc.

AT DEADLINE

IBM Microelectronics to ship PowerPC 604e

IBM Microelectronics Division this week will ship its PowerPC 604e processor at speeds of 166, 180, 200 and 225 MHz.

The processors are used in new systems from Power Computing Corp. of Round Rock, Texas (see Page 1), and they are expected to be deployed in machines from other clone vendors as well as from Apple.

IBM of East Fishkill, N.Y., said that at 225 MHz, the 604e has an estimated SPECint95 rating of 8.3 to 9.0, depending on system configuration. By contrast, the PowerPC 604 at 180 MHz has an estimated SPECint95 of 5.7 to 6.2. The Intel chip most frequently compared to the 604e is the Pentium Pro. At 200 MHz, that processor has an estimated SPECint95 of 8.09

In quantities of 1,000, the 166-MHz 604e costs $375; the 180-MHz version, $424; the 200-MHz version, $523; and the 225-MHz version, $594. □

Caere set for fall debut of OmniForm for Mac

Caere Corp. in September will add to its OCR offerings when it delivers a Mac version of OmniForm, the company's software package aimed at converting paper forms into editable text.

Caere said OmniForm, which is available in Version 2.0 for Microsoft Windows 95 and NT, will be based on the same OCR engine as the company's current products. The company said pricing for the Mac version was not available.

The $199.99 Windows version features a variety of automation features for scanning forms or creating new ones from scratch, then converting entries based on this information. It has fax and e-mail capabilities, a spell-checking feature, and a variety of design tools. In addition, OmniForm includes search and sort capabilities that let users arrange forms in ascending or descending order.

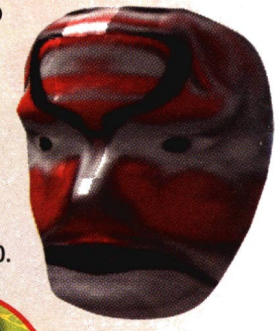
Caere Corp. of Los Gatos, Calif., can be reached at (408) 395-7000 or (800) 535-7226; fax-back (408) 354-8471; sales@caere.com; http://www.caere.com. □

Iomega to produce Jaz at former Quantum site

Boosting its production capabilities, Iomega Corp. of Roy, Utah, announced last week an agreement to purchase a production facility in Penang, Malaysia, from Quantum Corp. of Milpitas, Calif.

Iomega said it will pay $28 million for the operation, where it will produce Jaz drives and cartridges. The company said it expects to bring the 376,000-square-foot plant into volume production in the third quarter.

Several Penang companies manufacture hard drive components, and Iomega said it will use some of these parts in its Jaz drives, including head stacks and circuit boards. □



Let's face it, 3-D is cool: The SuperMesh plug-in for Ray Dream Studio creates 3-D shapes from 2-D images. See GA, Page 10.

Third-party processor upgrade cards for PCI Power Macs are finally out of the gate. See MacInTouch, Page 31.

Adaptec to demo FireWire PCI card at expo. See News, Page 6.

Print management from the Web: HP's JetAdmin will control printers from a browser. See Gateways, Page 14.

MacWEEK

07.22.96 VOLUME 10 NUMBER 28

Contents

4 NEWS

Apple to speed up 7600 • RAM Doubler to get a tuneup • Helix spins out Express 4.0 • Danish company readies new spreadsheet • Adaptec preps FireWire PCI card

10 GA

JVC levels XPosure charges at Quark • Apple delivers QuickTime 2.5, Interactive Music Toolkit • Polaroid to enhance SprintScan 35 line • New face on color masking

14 GATEWAYS

Insignia preps ICA client for remote use of Windows apps • Apple just says no to NT • HP and Pantone to bring publishing technologies to the Web • Engst explores the Mac's multihoming shortfall

25 REVIEWS

Beta Test: QuarkImmedia gives XPress users intro to multimedia • Beta Test: Claris Home Page a top-notch HTML editor • In Brief: UserLand Frontier 4.0, Kodak DC-20, MetaTools' Kai's Power Goo

31 SOLUTIONS

With nearly a half-dozen CGIs for database connectivity in existence, Webmasters are shifting their focus to better search tools.

DEPARTMENTS & OPINION

14 Working the Net
20 Editorial
20 Second Decade
21 Letters
21 Mac Manager
31 MacInTouch
70 StockWatch
74 Mac the Knife

ALSO INSIDE

34 Mail Order
50 MarketPlace
73 Advertiser Index
73 Product Index

www.macweek.com

MacWEEK Online

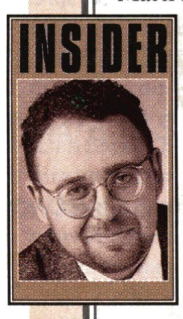
THE NEWS DAILY FOR THE MACINTOSH MARKET

THIS WEEK ONLINE

Cyberdog 1.1 details
Swinging on WebStar
Plug-ins page
DOS card from Reply

Online exclusives

Cyberdog 1.1 is due at the August Macworld Expo in Boston, but you can find out all about it now. … We tell you who's the latest to hop on the WebStar plug-in bandwagon, and we give you a page with links to all the developers' sites. … Reply is readying a DOS card for LC Macs. … Sun announces a Netscape Navigator plug-in that runs Tcl/Tk, its cross-platform GUI scripting language. … Opinion Page Editor Mark Hall toasts Apple's latest quarterly loss in Off the Record.



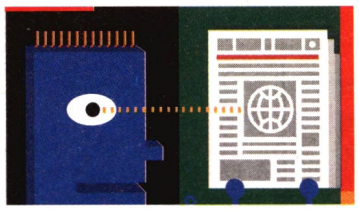
MacWEEK Insider

Senior Associate Editor/GA Matthew Rothenberg takes a look at the Mac OS' future and finds it encouraging. Apple's deficits are getting smaller, Power Computing's clones are getting faster, and that light at end of the tunnel might not be a train.

Where to find us online

MacWEEK reports the news every day, and you can find the latest stories on the Web at www.macweek.com. On CompuServe, the news is free at go zmc:mwnews, and you can visit the MacWEEK Forum to discuss the events of the day at go zmc:macweek.

MacWEEK (ISSN 0892-8118) is published weekly, with the exception of Jan. 1, July 1, Sept. 2, and Dec. 23 and 30, by Ziff-Davis Publishing Co., 1 Park Ave., New York, N.Y. 10016. Single-copy price, including postage: $6. One-year subscription rate: U.S., $125; Canada/Mexico, U.S. $225; International, U.S. $350 (airmail). All orders must be prepaid. Direct **subscription inquiries** to Customer Service Department, MacWEEK, c/o JCI, P.O. Box 10634, Riverton, N.J. 08076-0634; (609) 786-8230. **Changes of address** require that a new application be filled out completely and include both new and old addresses. Allow four to six weeks for processing. We periodically make lists of our customers available to carefully screened mailers of quality goods and services. If you do not wish to receive such mailings, please let us know by writing to us at Customer Service Department, MacWEEK, P.O. Box 10634, Riverton, N.J. 08076-0634. **Postmaster:** Send address changes to MacWEEK, P.O. Box 10634, Riverton, N.J. 08076-0634. Periodicals postage paid at New York and additional mailing offices. Printed in U.S.A. Canada Post International Publications Mail Product (Canadian Distribution) Sales Agreement No. 410667. Canadian GST registration number is 14049 6720 RT.



NEWS

Adaptec readies FireWire PCI card. See Page 6.

Apple to boost speed of 7600

Line will pack 8x CD-ROMs

By Joanna Pearlstein

Speed bumps and faster CD-ROM drives are reportedly coming in Apple's fall CPU harvest.

Sources said good tidings will begin this month when Apple reduces the prices on currently shipping Power Macs in the education channel and introduces the Power Mac 7600/132. A faster version of the Power Mac 7600/120, the 7600/132 will come equipped with 16 Mbytes of RAM, a 1.2-Gbyte hard drive, an 8x CD-ROM drive, Level 2 cache and a 15-inch monitor. It is expected to cost about $3,400 for education buyers.

The Power Mac 8500/150, released last spring, will reportedly also be made available to educators. With 16 Mbytes of RAM, a 2-Gbyte hard drive, an 8x CD-ROM drive and Level 2 cache, that machine will be priced at about $4,300, sources said.

The faster CD-ROM drives will come to the entire Power Mac line as part of Apple's August Macworld Expo announcements in Boston, sources said, as will a non-education version of the 7600/132.

Apple is also expected to announce a second round of speed bumps for the Power Mac line at the show; the machines will reportedly ship in time for Comdex/Fall '96 in November. That line is expected to include redesigned cases for some Power Macs. Sources said that because the 7600's current easy-to-open design has led to increased theft of RAM, Apple may add a security bar to its case.

Apple declined to comment. □

RAM Doubler 2.0 triples memory

By Marty Cortinas

Connectix Corp. plans to ship in August a product that could be called RAM Tripler, but the company will stick with RAM Doubler 2.0.

With the upcoming version of the company's RAM enhancer, set for release at Macworld Expo in Boston, users will be able to triple the perceived RAM on their machines, the company said.

RAM Doubler 2.0 will also give users more control over the level of RAM enhancement via a slider in a control panel. Users will be able to select from a range of performance levels, from simple file mapping without RAM compression to RAM tripling.

According to the company, RAM Doubler 2.0 will work twice as fast as the previous version.

Ted Lindberg, an attorney in San Francisco, uses RAM Doubler 2.0 on his home Power Mac and on his PowerBook. "I haven't noticed any slowdown, [and] I was really trying to push it" by opening all the applications on the hard drive.

The utility will work on any Macintosh with a 68030 or greater processor and at least 8 Mbytes of RAM.

RAM Doubler 2.0 is expected to have a street price of $60. Owners of previous versions of RAM Doubler are eligible for a $25 rebate on the purchase of the new version.

Connectix Corp. of San Mateo, Calif., can be reached at (415) 571-5100 or (800) 950-5880; fax (415) 571-5195; http://www.connectix.com. □

Texas trio to accelerate CPUs with processor and PCI cards

By Joanna Pearlstein

Three Texas companies have big plans for boosting the speed of Mac systems.

▶ **PowerTools Technologies** in late August intends to ship single-, double- and quadruple-processor cards. The cards will use PowerPC 604 chips running at 150 MHz and 160 MHz as well the forthcoming 200-MHz PowerPC 604e processor (see MacInTouch, Page 31).

The company's single- and dual-processor processor direct slot cards will replace the CPU daughtercard on systems from Apple, Power Computing Corp. and UMAX Computer Corp.

PowerTools' three single-processor PDS cards, the PowerSource 604/150, 604/160 and 604e/200, will cost $899, $999 and $1,299, respectively. The dual-processor versions will sell for $1,299, $1,499 and $1,999, respectively.

For 680x0 and PowerPC sys-

See PowerTools, Page 6

Helix to spin out Version 4.0

By Clifford Colby

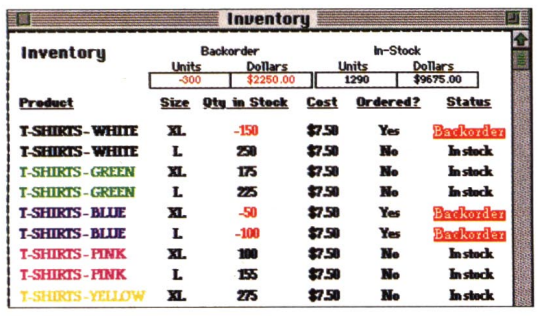
Helix Technologies said it intends to ship Version 4.0 of its Helix Express relational database in mid-August.

According to the company, the update will allow users to copy and paste Helix Express objects between Helix applications. Previously, users had to reconstruct items for each new application, the company said. The update will let users store database structural elements in the Mac Scrapbook.

Users will be able to assign styles and colors to text with the update. The update will also let developers add hierarchical pull-down menus to their applications.

Helix 4.0 will cost $795 for the development environment and $168.75 to $249 per client, depending on the number of user licenses. Until Aug. 16, current users can upgrade for $179; client-server licenses can be upgraded for $79 per client for as many as four clients and $395 for five or more clients. The regular upgrade price is $269 for Helix and $129 per client.

Helix Technologies of Prospect Heights, Ill., is at (847) 465-0242 or (800) 364-3549; fax (847) 465-0252; support@helixtech.com; http://www.mcs.net/~hxtech.



The new version of Helix Technologies' Helix Express will let users assign colors and styles to text based on the results of a query or calculation.

3-D spreadsheet raised a level

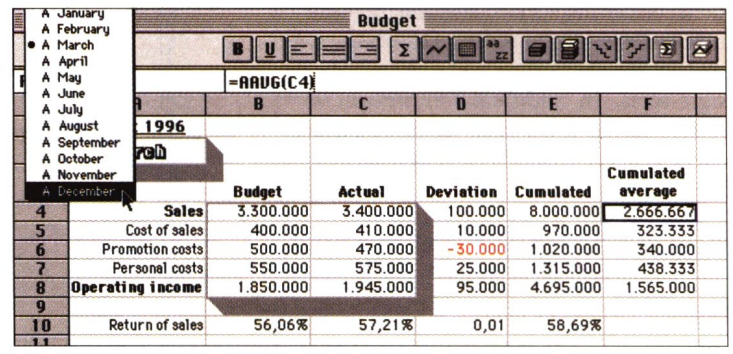
App shares data among worksheets

By John Poultney

Danish software developer Profunda is taking spreadsheets to another level with Storeys, a 3-D application that shares common data among worksheets in a single document.

The product, which derives its name from a building metaphor, features a 3-D block of cells that holds data unique to each worksheet, while surrounding global cells retain data or formulas as other worksheets are added. As data changes for one worksheet, new totals are calculated to that sheet or to a master sheet linked to any number of layers.

This approach, Profunda said, is particularly useful for sequential record keeping, such as monthly departmental sales statistics, patient records, financial plans or scientific records. For detailed projects, up to 32,000 worksheets may be linked through shared data blocks.



The highlighted cells in A1 and from B4 to C8 contain data unique to this layer of a Storeys spreadsheet. The surrounding formulas are retained when a user switches to other layers of the worksheet.

The company said that using a shared data block with stacked worksheets provides several advantages over using separate files in an ordinary spreadsheet program, such as Microsoft Excel. For example, a 34-level Storeys document takes up only about one-third as much RAM and hard disk space as 34 separate Excel documents, Profunda said.

The company said the software, available in PowerPC or 680x0 code, will ship with a standard complement of charting functions; graphs linked to shared data blocks will reflect changes in the data.

Storeys will be released in beta over the Internet in mid-August as a free download. Pricing has not been set for the commercial

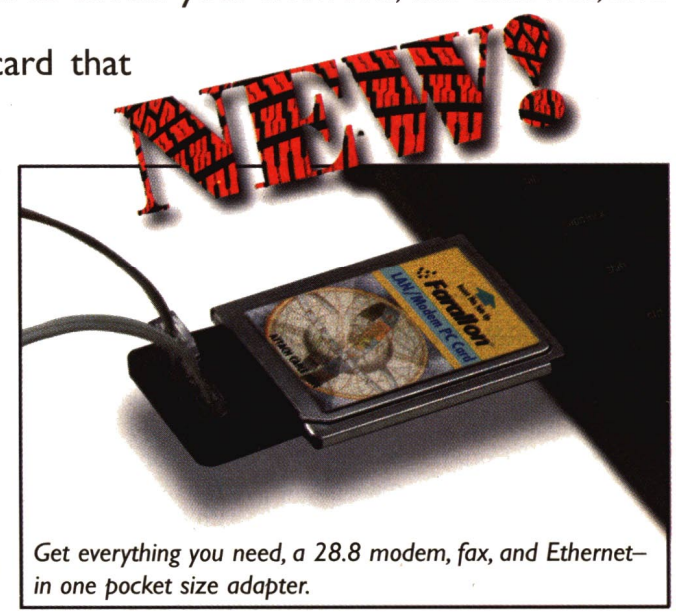
See Spreadsheet, Page 6

Road Kill. Road Warrior.

Don't Get Run Over. With the pace of today's business environment you need to stay on top of things as they happen, otherwise, the competition will run you over. What you really need is a portable and reliable solution from a proven leader in Mac networking. Farallon's new LAN/Modem PC Card is the only combo card that offers SafeJack™, the smallest and most reliable PC Card connector available. With the combined functionality of a blazing fast 28.8 Kbps data and fax modem and 10Base-T Ethernet connection in one adapter, you've got a guaranteed connection to access your network, the Internet, and send or receive faxes simultaneously–with no interruption! It's also the only card that works in both PowerBooks and PC notebooks.

Everything You Need. Along with a twin-pack of Farallon's award-winning Timbuktu Pro® remote control software **(a $259 value!)**, we've included STF fax software, ZTerm terminal software, and robust diagnostics to make communications a snap. With Farallon you can become the Road Warrior you were born to be.

For details call **1.800.463.1987** or visit **www. farallon.com** **Farallon®**



Get everything you need, a 28.8 modem, fax, and Ethernet– in one pocket size adapter.

Adaptec to demo FireWire PCI card at Macworld Expo

Branded version to be out in '97

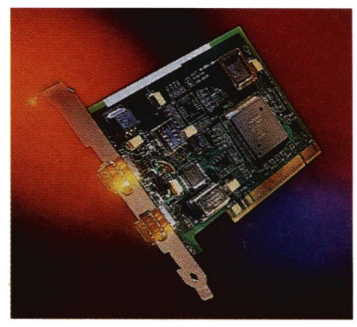
By John Poultney

Taking a shine to FireWire, Adaptec Inc. will unveil an IEEE 1394 PCI card for OEM vendors at August's Macworld Expo in Boston. The company said it expects to offer a branded version in early 1997.

Currently unpriced, the half-size PCI card will use Adaptec's 1394-PCI bridge chip and a physical interface chip from IBM Corp. The Milpitas, Calif.-based Adaptec said the card will support data transfer rates up to 25 Mbytes per second. The bridge chip can handle speeds up to 50 Mbytes per second, which will be used in future products, the company said.

The card will offer a pair of external six-pin 1394 connectors as well as an internal connector. Users will be able to attach the card with an internal pass-through cable to the host's power supply; the card will then provide power to devices in the 1394 chain.

Adaptec said it sees system vendors initially using the cross-platform cards in high-end digital video systems, especially for connecting digital video cameras such as Sony Electronic Inc.'s DCR-VX1000 and DCR-VX700 (see 09.18.95, Page 82).



Adaptec's forthcoming OEM 1394 PCI board will offer data transfer rates up to 25 Mbytes per second.

"There's a lot of pent-up demand," said Adam Silver, product manager for Advanced Media Products at Adaptec. □

Bare Bones, Nisus roll out new text editors

By John Poultney

Bare Bones Software Inc. and Nisus Software Inc. are offering new versions of their text editors.

▸ **Bare Bones.** The new edition of Bare Bones, Version 4.0.1, lets users open, save and edit files on FTP servers. Beta tester Greg Ferguson said the FTP access is useful. "I use it to download and manipulate password files for our user base," he said, "whereupon, I can run them through grep and immediately put them back up under a different name."

The update allows users to assign colors to different parts of their code.

The package includes UserLand Frontier 4.0.1 scripting system and various extensions for HTML coding, text processing and translation functions. The update costs $119, but Version 4.0 users can download the update free from the company's Web site. Owners of versions prior to 4.0 can upgrade for $39; users of Adobe Systems Inc.'s PageMill HTML editor qualify for a $79 competitive upgrade.

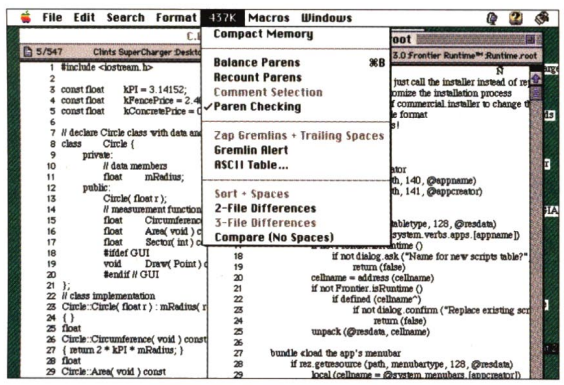
▸ **QUED/M.** Text coloring is also included in Nisus' update of QUED/M. Version 3.0 includes Macro Builder, which the company said lets users place macro commands into an application's menus. The company said it also beefed up QUED/M's support for Symantec Corp.'s and Metrowerks Corp.'s development environments.

The update ships with HTML macros for Web page creation and includes Celestin Co.'s Apprentice 4, a CD-ROM loaded with development utilities and sample C, C++ and Pascal source code and class libraries.

QUED/M costs $119, but users can purchase it for $69 through midfall. Upgrades go for $49.

Bare Bones Software Inc. of Bedford, Mass., can be reached at (617) 676-0650; fax (617) 676-0651; sales@barebones.com; http://www.barebones.com.

Nisus Software Inc. of Solana Beach, Calif., is at (619) 481-1477 or (800) 890-3030; fax (619) 481-6154; sales@nisus-soft.com.; http://www.nisus-soft.com. □



Nisus' QUED/M 3.0 includes a CD-ROM full of source code, libraries and utilities.

For the record

The 07.15.96 story about the StudioBoss FC system from Transoft Corp. (Page 8) incorrectly identified the manufacturer of the Media 100 video board. The correct manufacturer is Data Translation Inc.

Spreadsheet *From Page 4*

version. The company said it is in discussions with several software companies, including Corel Corp., Adobe Systems Inc., Novell Inc. and Lotus Development Corp., for licensing or distribution arrangements.

Profunda Director Dan Pedersen said Storeys will also be released as an OpenDoc container later this fall, so that users may add components for text, drawing and other functions; the software will later be released as an OpenDoc part. Since Profunda is a QuarkXTension developer, there is a possibility that Storeys will be released as an XTension, but the company could not confirm when this might happen.

Profunda of Copenhagen, Denmark, can be reached at 45-3-119-4094; fax 45-3-833-5542; profunda@dk-online.dk. □

Two UMAX flatbeds tricked out with bundles

By Leander Kahney

UMAX Technologies Inc. last week pumped up the software bundled with two of its color flatbed scanners.

Both the $399 Vista-S6E and the $750 Vista-S12 now come with Adobe Photoshop 3.0 as well as Presto PageManager, an OCR package from UMAX's new software arm, NewSoft Inc.

Held over from the original bundle is UMAX's MagicMatch color-management system for scanners, printers and monitors.

Both the Vista-S6E and the Vista-S12 scanners are based on CCD (charge-coupled device) and capture eight bits each of RGB information per pixel in a single pass. Each connects to the Mac via a SCSI-2 interface.

Aimed at the small-office, home-office market, the Vista-S6E offers an optical resolution of 300 by 600 dpi; software interpolation can raise the resolution to 4,800 dpi.

The Vista-S12 includes gamma-correction hardware that lets users capture color images at a depth of 33 bits per pixel, UMAX said. The scanner offers an optical resolution of 600 by 1,200 dpi, or 9,600 dpi via software interpolation.

Options for both scanners include a $495 50-page automatic document feeder.

UMAX Technologies Inc. of Fremont, Calif., can be reached at (510) 651-4000 or (800) 562-0311; fax (510) 651-8834; sales@umax.com; http://www.umax.com. □

Adobe Photoshop is now bundled with UMAX's latest color flatbed scanners.

Seagate to build Jaz cartridges

Seagate Technology Inc. announced it is now manufacturing removable cartridges for Iomega Corp.'s Jaz drive. Seagate said it expects to reach volume shipments during the third quarter of 1996.

Seagate, based in Scotts Valley, Calif., is currently assembling the cartridges at its domestic headquarters and said it plans to move the operation to Asia in the near future. A spokeswoman for Iomega of Roy, Utah, said the Seagate components will augment Iomega's own production and that cartridges for Iomega's Zip drive are not included in the arrangement. □

PowerTools *From Page 4*

tems with NuBus slots, PowerTools will ship the $899 150-MHz 604 and $1,299 200-MHz 604e NuBus-based accelerator versions.

The quadruple-processor cards will ship in a PCI form factor. The $3,999 PowerSource Quad 604/150 will include four 150-MHz 604 chips, and the $5,299 PowerSource Quad 604e/200 will pack four 200-MHz 604e processors; each will include four 256-Kbyte Level 2 caches.

▸ **XLR8 Inc.** in August plans to roll out its PowerEdge line, a collection of single-processor cards running PowerPC 604s at 120, 132, 150 and 160 MHz; they will cost $699, $799, $899 and $999, respectively. Users who send their old daughtercards to XLR8 will receive a $200 rebate for 604-based cards and $100 for 601-based cards. XLR8 said it plans to ship 200- and 225-MHz 604e-based cards later this year.

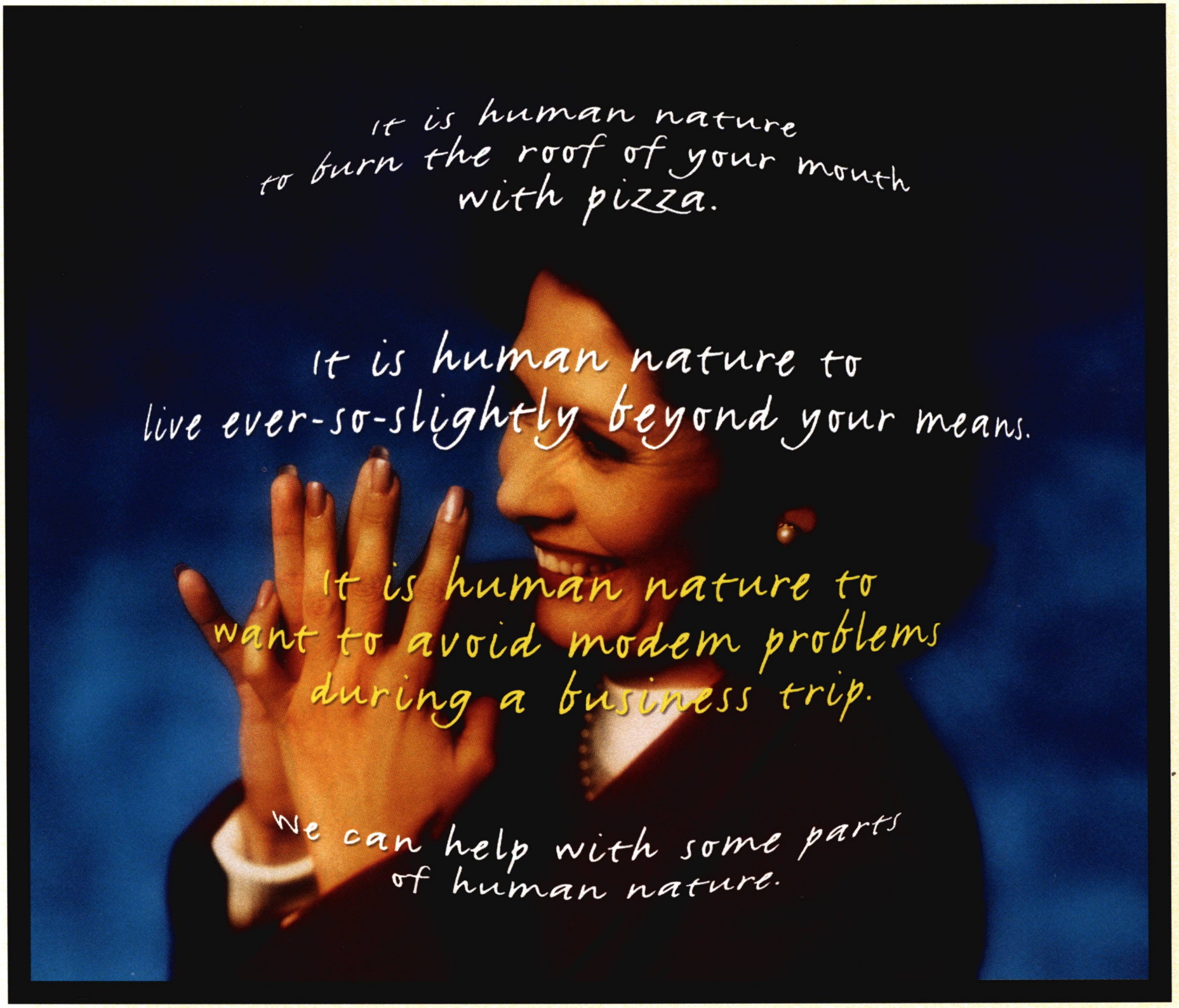
▸ **PowerLogix** this month shipped Mach 9, a $199 CPU accelerator for PowerPC 604-based systems from Power Computing.

The company said it plans to show its new accelerator at August's Macworld Expo in Boston.

PowerTools Technologies of Austin, Texas, can be reached at (512) 891-0646; fax (512) 476-6399; sales@pwrtools.com; http://www.pwrtools.com.

XLR8 Inc. of Austin can be reached at (512) 346-2557; fax (512) 346-2800; xlr84u@aol.com; http://www.xlr8.com.

PowerLogix of Austin can be reached at (512) 244-7394; fax (512) 244-7409; sales@powerlogix.com; http://www.powerlogix.com. □


It is human nature
to burn the roof of your mouth
with pizza.
It is human nature to
live ever-so-slightly beyond your means.
It is human nature to
want to avoid modem problems
during a business trip.
We can help with some parts
of human nature.

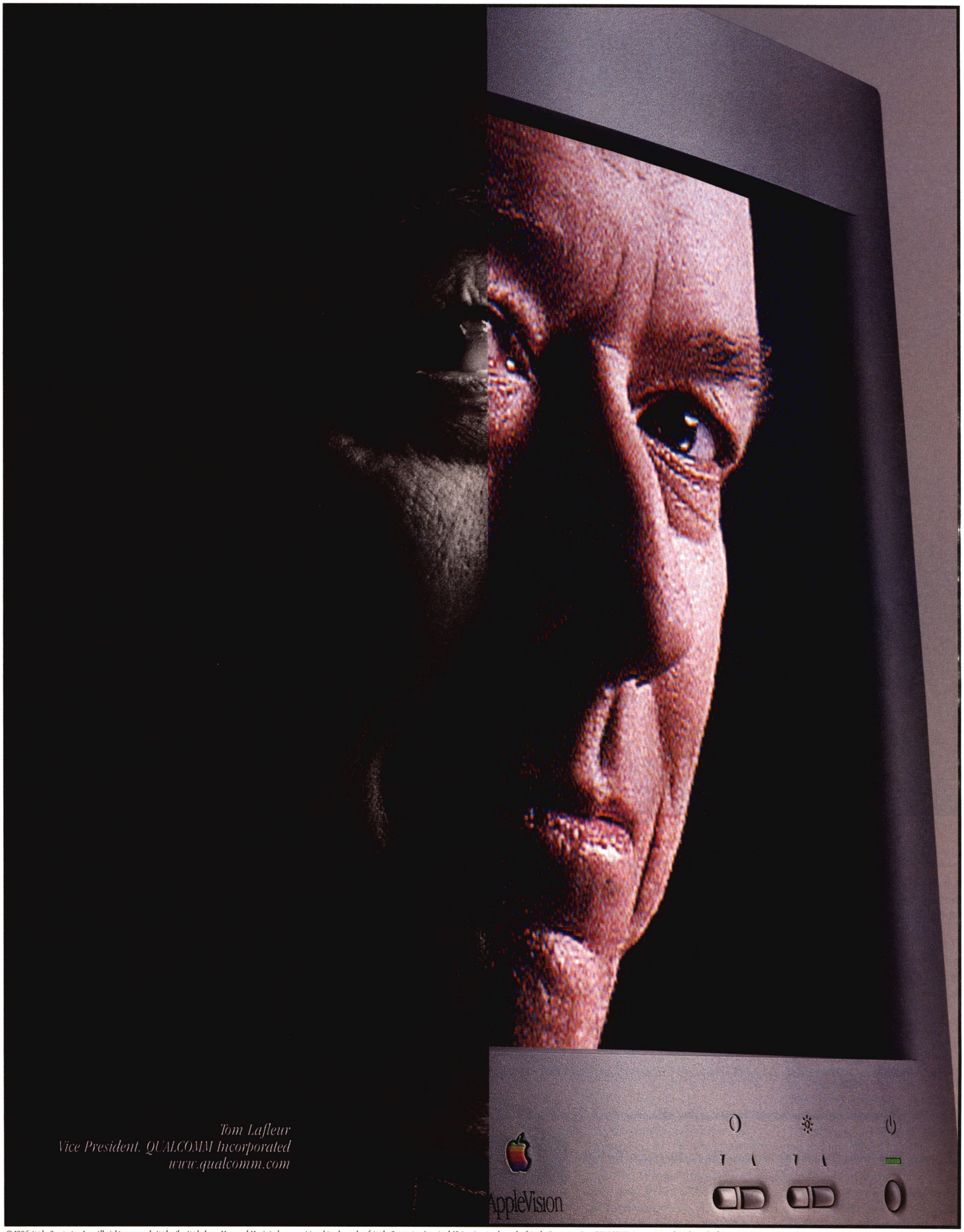
28.8 CruiseCard™ Modem With XJACK®:
Designed for PowerBooks.
Digital Line Guard.
Cellular Direct Connect.
Travel Headache Nullifier.

It is human nature to think that using anything without a rainbow-hued apple on it is a good way to get a migraine. That's why we've created the 28.8 CruiseCard™ PC Card Modem to be compatible with PowerBooks, life on the road and, most important, you. Our patented XJACK® connector pops out to connect to any standard phone jack, and hides itself neatly for travel. That means there are never any proprietary cables to carry (or lose). Digital Line Guard warns you if you're about to fry your modem by plugging into a digital PBX phone line. Plus, Cellular Direct Connect with Cable Sensor lets you connect anytime, anywhere, without configuring hassles. The result? You can stay in touch, no matter where business takes you. But, first you'll need to get in touch with us. Call 1-800-LINKING, ext. 4313. Or find us on the Net at www.megahertz.com/patible.

Megahertz® by U.S. Robotics®

Compatible with you™

The XJACK connector is U.S. Patent Nos. 5,183,404, 5,336,099 and 5,338,210, property of US Robotics Mobile Communications Corp. ©1996 US Robotics Mobile Communications Corp. Megahertz, the Megahertz logo and XJACK are all registered trademarks of US Robotics Mobile Communications Corp. AllPoints, "Compatible with you" and CruiseCard are trademarks of US Robotics Mobile Communications Corp. Megahertz is licensed by Spectrum Information Technologies, Inc. All other product names are trademarks or registered trademarks of their respective holders. It is human nature to always read the fine print.



Tom Lafleur
Vice President, QUALCOMM Incorporated
www.qualcomm.com

©1996 Apple Computer, Inc. All rights reserved. Apple, the Apple logo, Mac and Macintosh are registered trademarks of Apple Computer, Inc. AppleVision is a trademark of Apple Computer, Inc. QUALCOMM is a registered trademark of QUALCOMM Incorporated. Eudora is a registered trademark of the University

THERE'S A PLACE WHERE WALLS BETWEEN OFFICES ARE REPLACED BY WORDS.

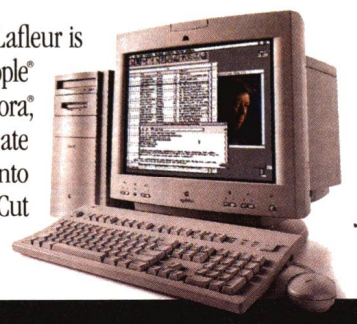
Where questions never go unanswered.
Where the people you need to find can always be found.

Where information forever eludes the bottleneck.
And misunderstanding has taken a leave of absence.

IT'S A PLACE CALLED THE INTRANET.

And you can take your business there on a Macintosh.

As V.P. and resident visionary for QUALCOMM – one of the brightest stars in digital wireless communications – Tom Lafleur is finding innovative ways to stay ahead of his company's phenomenal growth with the help of the World Wide Web and Apple® Macintosh® computers. In fact, Tom started QUALCOMM's Intranet by running one of their own products on a Mac® – Eudora®, which has since become the most popular e-mail software for the Net. Today, people are using Macintosh to easily create web pages and share details of their projects with the rest of the organization. So engineers have instant insight into manufacturing problems, can pull up drawings and quickly resolve issues. Which has slashed the need for paper. Cut support costs. And sparked unprecedented collaboration. Not to mention knocking a few walls down along the way.



For more information on Apple products and solutions, or to subscribe to our electronic newsletter, visit us at www.solutions.apple.com/intranet

of Illinois Board of Trustees, licensed to QUALCOMM Incorporated. All Macintosh computers are designed to be accessible to individuals with disability. To learn more (U.S. only), call 800-600-7808 or TTY 800-755-0601.

JVC to take on XPosure

Charges Quark abandoned app

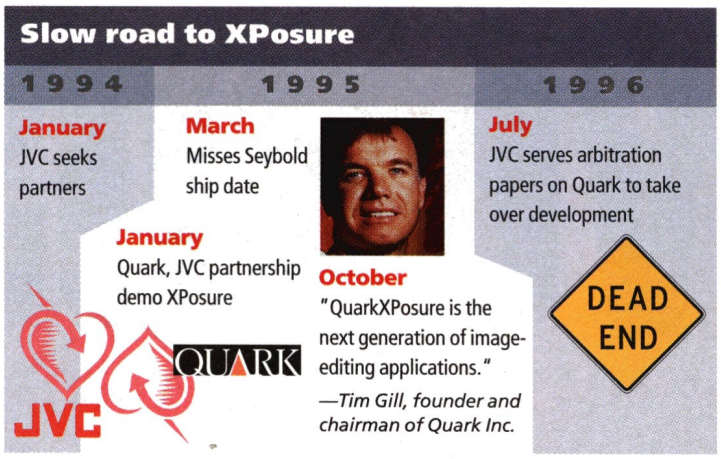
By Rebecca Gulick

In a new reversal of fortune for the long-awaited QuarkXPosure image-editing package, JVC Laboratory of America this month announced that it has initiated arbitration proceedings with development partner Quark Inc. for breach of a licensing and distribution agreement.

Meanwhile, JVC said it is prepared to go it alone in bringing XPosure to market.

JVC, a division of US JVC Corp. of Elmwood Park, N.J., said it served papers to Quark on July 10 and is seeking more than $14 million in damages from the Denver-based software developer.

JVC also announced that it has served Quark with a notice of termination, pursuant to the terms of the agreement. JVC said it plans to continue developing XPosure itself and hopes to ship it quickly.



"The product is close to completion, so it shouldn't be too long of a delay," said Nancy Bird, JVC manager of corporate communications.

Quark said its legal department received the papers on July 15 and that the company was not prepared to comment on the case.

Quark and JVC had collaborated on XPosure since 1994 without releasing a product. According to a statement by JVC General Manager Ken Ishii, Quark's conduct over the past year indicated that the company intended to undermine the project and prevent its release as a commercial product.

Ishii said that in recent months

See XPosure, Page 12

The Apple Interactive Music Toolkit will combine media elements into a QuickTime Album Container file that will be read by a new AppleCD Player utility.

Apple updates QT, shows music tool kit

By Kelly Ryer

In its latest overture to multimedia mavens, Apple announced the long-awaited shipment of QuickTime 2.5 as well as a new Interactive Music Toolkit at last week's Macintosh New York Music Festival.

Apple, which broadcast some of the festival's 450 bands on the Internet, said the latest version of QuickTime, its multimedia architecture, will be available for the Mac within the next two weeks at http://www.quicktime.apple.com.

In addition, Apple unveiled a number of previously unannounced features slated for QuickTime 2.5 (see 03.11.96, Page 1).

A graphics-importer component will let QuickTime-aware applications directly import GIF, MacPaint, Silicon Graphics and Adobe Photoshop files. A primary data handler will maximize throughput to speed and smooth playback of QuickTime sequences, Apple said.

Both the JPEG and Raw compressor-decompressors will be asynchronous on Power Macs, allowing QuickTime to continue processing data while simultaneously compressing or decompressing video. A new clock component will synchronize video and sound

See QuickTime, Page 12

Mesh module plugs into 3-D

By Kelly Ryer

Fractal Design Corp. this month enhanced Ray Dream Studio, its new 3-D acquisition, with a plug-in that creates 3-D shapes from 2-D images.

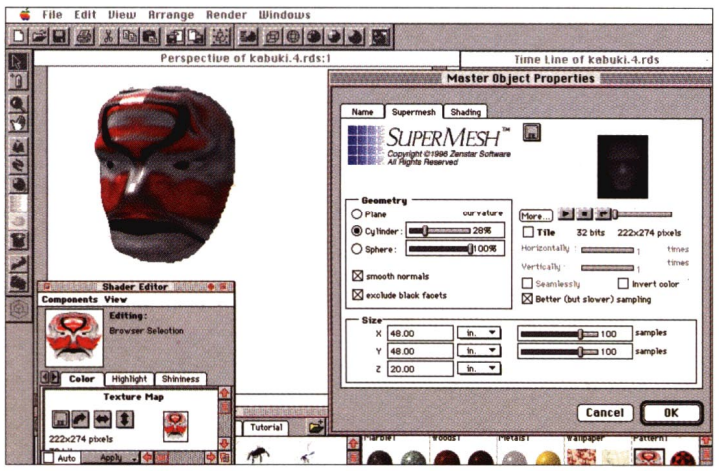
SuperMesh, priced at $49, uses the brightness value of each pixel in a bit-mapped image to create a mesh object. The mesh can be wrapped around a sphere, cylinder or flat plane. Users can adjust the size and complexity of the mesh, Fractal said.

In addition, SuperMesh can create animated objects by generating meshes based on a QuickTime movie instead of a still image. The software also lets users animate the curvature of an object over time.

The plug-in is available for both Mac and Microsoft Windows versions of Ray Dream Studio, and it is bundled with the latest version of Ray Dream Studio on CD-ROM.

SuperMesh was developed by Zenstar Software of Cupertino, Calif.

Fractal Design Corp. of Aptos, Calif., can be reached at (408) 688-5300 or (800) 846-0111; fax (408) 688-8836; http://www.fractal.com.



Dance this mesh around: In SuperMesh, the image's light-colored areas in the upper right are pushed outward and dark areas moved in to make a 3-D object.

YARC delivers free software RIP for plotters

By Matthew Rothenberg

In a quest to expand the consciousness of users seeking wide-format PostScript output, YARC Systems Corp. this week is slated to deliver a free software-only version of its RIP for a variety of printers and plotters.

The YARC RIP Lite CD-ROM will be bundled with all CalComp TechJET printers. It will also be available to users of wide-format devices from EnCAD Inc. and Hewlett-Packard Co.

See YARC, Page 12

Polaroid adds scanners

By Matthew Rothenberg

Polaroid Corp.'s Digital Imaging Group is preparing to stretch its line of slide scanners with two new versions of the SprintScan 35.

The $1,295 SprintScan 35/LE and $2,595 SprintScan Plus will join the company's $1,995 SprintScan 35/ES.

Like the original scanner, both the LE and Plus will be based on CCD (charge-coupled device) arrays and capture 35mm color slides in a single pass. All three SprintScan 35 models connect to the Mac via a SCSI-2 interface and come with a plug-in for Adobe Photoshop.

The LE, slated to ship in August, will capture 10 bits each of RGB information per pixel. It will offer an optical density range of 3.0 and an optical resolution of 1,950 dpi, Polaroid said.

Polaroid's new SprintScan 35 models fill out the high and low ends of the company's film-scanner line.

The Plus, due in September,

See Polaroid, Page 12

START REPLACING WALLS WITH WORDS.

It's time to remodel. And the Apple® Internet Server Solution is one of the fastest, easiest ways to transform your company. By dramatically improving communications. By unlocking hidden information. By knocking down a few walls.

With it, you can easily turn your network into an Intranet – an information warehouse where people can find answers to just about any question, and share results with just about anybody.

Now, virtually any document – from internal phone books to requisition forms to invoices – can be converted to electronic form and quickly updated. So people can more accurately and easily manage their work flow.

The Apple Internet Server Solution makes it easy for people to find new ways to communicate. Easy to support Windows and UNIX.® Easy to grow. And, since security is built in, easy to prevent break-ins.

All the software that people need to set up, author and maintain their web page is included as well. Software available only for Macintosh.® Like Adobe™ PageMill,™ which makes creating a web page as simple as creating a word processing page. No complex languages to learn. No editors or browsers to juggle.

To find out more, visit us at the web address below. And discover a whole new way to reengineer your business.

Apple Premium Server Reseller

Apple Premium Server Resellers are available to help you determine which solutions are best for your business.

For more information on Apple products and solutions, or to subscribe to our electronic newsletter, visit us at www.solutions.apple.com/intranet

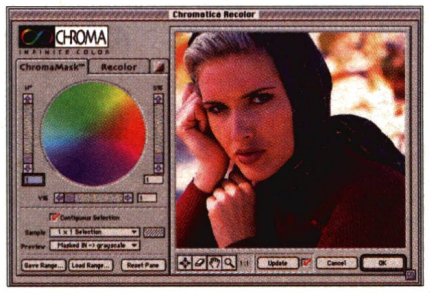
©1996 Apple Computer, Inc. All rights reserved. Apple, the Apple logo and Macintosh are registered trademarks of Apple Computer, Inc. Adobe and PageMill are trademarks of Adobe Systems Incorporated or its subsidiaries and may be registered in certain jurisdictions. UNIX is a registered trademark of Novell, Inc., in the United States and other countries, licensed exclusively through X/Open Company, Ltd. All Macintosh computers are designed to be accessible to individuals with disability. To learn more (U.S. only), call 800-600-7808 or TTY 800-755-0601.

Chroma to don color mask

By Rebecca Gulick

Chroma Graphics Inc. is gearing up to launch its first product, an Adobe Photoshop plug-in for masking and recoloring images that the company hopes will set a new standard for color editing and manipulation.

Chromatica, expected to ship in August, will be able to mask any object after a user selects a small sample, Chroma said. According to the company, the tool is more accurate than Photoshop's Magic Wand and Lasso tools or other masking plug-ins. Chromatica's EdgeWizard module will automatically blend the edges of selected masks into the background image.



Chromatica will accurately mask an object and swap in a different color palette.

Once an object has been masked, Chromatica's ChromaPalette module will create a color palette based on the colors in that object. Users will then have the option of swapping in new palettes for different color effects. Chromatica will ship with 1,000 predefined color palettes.

The plug-in is the first of a series of products based on Chroma's technology that will result in more-accurate editing, pattern recognition and color mapping, the company said.

Pricing for Chromatica, which will be available for 680x0 and Power Mac machines, has not been set. A Microsoft Windows version is expected to ship by year-end.

Chroma Graphics Inc. of Burlingame, Calif., can be reached at (415) 375-1100 or (888) 824-7662; fax (415) 375-1118; http://www.chromagraphics.com. □

YARC

From Page 10

YARC said the Lite version is based on the same proprietary PostScript Level 2 interpreter and includes all the capabilities of the complete card-based YARC RIP, which costs $5,995. However, output speeds of the software are limited by the speeds of the Mac's serial port. YARC said the RIP board is about three times faster than the software-only version.

The software will come with the complete version of ColorSync 2.0, Apple's system-level color-management extensions. The company recommends installing YARC RIP Lite on Macs with at least 24 Mbytes of RAM.

YARC Systems Corp. of Newbury Park, Calif., is at (805) 499-9444 or (800) 275-9272; fax (805) 499-4048; info@yarc.com. □

Polaroid

From Page 10

will scan 12 bits each of RGB data per pixel. It will handle an optical density range of 3.4 and support an optical resolution of 2,700 dpi.

The ES scans 10 bits each of RGB data per pixel; it offers an optical density range of 3.0 and an optical resolution of 2,700 dpi.

Like the ES, the two new scanners will let users insert mounted 35mm slides into a slot at the top of the scanner. A filmstrip carrier will let users scan up to six unmounted negatives or positives at a time.

Polaroid Corp. of Cambridge, Mass., can be reached at (617) 386-2000 or (800) 816-2611, Ext. 971; fax (617) 386-9339; http://www.polaroid.com. □

QuickTime

From Page 10

over different types of hardware.

QuickTime 2.5 will also let users capture closed-captioned text and embed it into a QuickTime movie's text track, allowing sequences to be searched and catalogued.

Meanwhile, Apple also offered record-industry executives a preview of a new tool for creating interactive CD-ROMs, which Apple said it plans to ship later this year.

According to Marianne Marino, product manager for the Apple Interactive Music Toolkit: "The goal is to make [enhanced CD production] easy but powerful.

"We want artists to be able to use in-house production to create their own enhanced CDs," Marino said.

The tool kit, which will be available at no cost, will use the music engine from Apple Media Tool, Apple's multimedia authoring package.

Users of the tool kit will be able to create cross-platform enhanced CDs in the Blue Book standard. Apple will also ship an Apple CD Player utility for Macs and Microsoft Windows machines, Marino said.

Because CD-ROM players cannot read from two locations on a disc at once, they cannot play back QuickTime and Red Book (normal CD) audio simultaneously. The new Apple tool uses two methods to overcome this limitation.

The first method will play only lyrics and CD audio. Users will be able to import a text file and use a portion of the tool kit, codenamed LyrAssist, to sync the lyrics to the music.

Alternatively, the software will let end users install CD-based lyrics and QuickTime movies onto their hard drive, then play them back simultaneously.

According to Marino, movie and lyric files can also be downloaded from the Internet. "Music fans will just go to Tower Records and buy a regular CD, then download the interactive part from the Web, and it will all play together," she said. □

XPosure

From Page 10

Quark has not even had a product manager assigned to XPosure, although Quark denied this allegation. JVC also alleged that Quark failed to address technical issues and provide technical input.

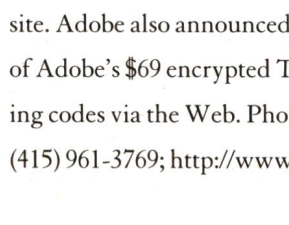
"Quark tends to operate like a one-product company," said a former Quark manager. "Now they are devoting all their resources to Immedia" instead of XPosure.

Analysts said a company the size of JVC would pose a formidable challenge to Quark in court. But things may not get that far; according to JVC's Bird, "We're pretty confident that it will be resolved through arbitration."

Sources said the bulk of XPosure's code was developed by JVC and that Quark's involvement centered on the interface design. In an October 1995 interview, Quark Founder and Chairman Tim Gill said, "QuarkXPosure is the next generation of image-editing applications" (see 10.09.95, Page 12). He also praised the software's unlimited undo feature. □

FONT BEAT

Beaucoup fonts. Agfa, a division of Bayer Corp., of Wilmington, Mass., recently released Version 7.0 of its AgfaType Collection. The cross-platform CD-ROM contains 4,300 typefaces and four type libraries. The Creative Alliance Library comprises more than 1,000 contemporary typefaces, including new faces from FontHaus and Art Parts EPS illustrations. The Cornerstone Collection contains more than 500 classic AgfaType fonts, including the Agfa Rotis family, Engravers' Sets and Typographer's Editions. The AgfaType Logo and Symbols Library features more than 10,000 images. Most fonts are $7 each until Sept. 30; thereafter Adobe fonts will be $24 per face; Agfa and Fontek typefaces will range from $39 to $90. Phone (508) 658-5600 or (800) 424-8973; fax (508) 657-5328; http://www.agfahome.com.



Symbolic fonts. Deniart Systems of Toronto recently released three historical font sets. The $39.95 Astrologer series includes Celtic, Chinese and Western zodiacs; planets; and charting symbols. The $39.95 Ancient Writings Volume II series includes six faces based on ancient symbols, and the $59.95 Egyptian Hieroglyphics Volume IV contains more than 375 symbols. Phone (416) 941-0919 or (800) 725-9974; fax (416) 941-0948.

Mac with a K. International Typeface Corp. of New York this month shipped its Rennie Mackintosh family of faces based on the hand lettering of Charles Rennie Mackintosh, a renowned 19th-century draftsman from Glasgow, Scotland. Pricing is set at $39.99 per style. Phone (212) 371-0699 or (800) 634-9325; fax (212) 752-4752.

Type with a past. The Font Bureau Inc. of Boston last month announced new Type 1 fonts. They include Hightower, a design based on a 15th-century Venetian text face; FB Reactor, which combines abraded and eroded text forms; and Shogun, a pointed display face. In addition, two new italic iterations have been added to the SamSans family of roman faces. Single-user licenses are $40 per typeface style. Phone (617) 423-8770; fax (617) 423-8771; http://www.fontbureau.com/.

Key to your font. Adobe Systems Inc. of Mountain View, Calif., said it has made CyberSource Corp. the electronic distributor of its 2,100 Adobe Type Library Type 1 typefaces, which can be purchased via the Internet at http://www.software.net or from Adobe's Web site. Adobe also announced an electronic service that will let owners of Adobe's $69 encrypted Type on Call CD-ROM purchase unlocking codes via the Web. Phone (415) 961-4400 or (800) 833-6687; fax (415) 961-3769; http://www.adobe.com.

— By Rebecca Gulick

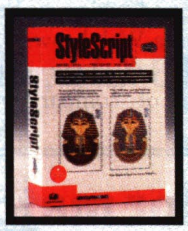
PostScript Solutions

This Encapsulated PostScript (EPS) image was printed on an Apple Color StyleWriter **without** StyleScript

This Encapsulated PostScript (EPS) image was printed on an Apple Color StyleWriter **with** StyleScript

Adobe PostScript

Freedom of expression



Print PostScript to a non-PostScript printer!

If you are sending PostScript graphics to an Apple StyleWriter, you need StyleScript to smooth the jaggies and free you from bad output. With StyleScript, you can turn an Apple StyleWriter into an affordable, sharp, high-quality PostScript printing machine. StyleScript is an amazing product that utilizes genuine Adobe PostScript Level 2 software, and works easily with your printer. StyleScript maximizes the output quality of your PostScript graphics to your printer's best resolution. You get the same result as you would using a PostScript printer – for less than $150!

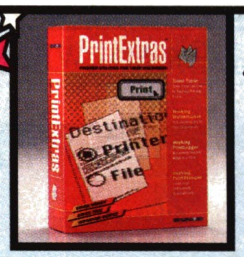
The answer, my friend, is StyleScript!

The above images were created in Illustrator, exported as EPS files into PageMaker and printed on an Apple Color StyleWriter 2500.

StyleScript®

Soon! StyleScript for DeskWriters SEPT '96

Printer Enhancements



PrintExtras

This product offers four great printer utilities in one box! They are:

Toner Tuner: Adjusts the darkness when you print, saving toner and ink

Working PrintLogger: Records useful information about each print job

Working PrintStamper: Labels each document automatically with useful information

Working WaterMarker: Prints standard or custom graphics in the background of any printed document

Hardware Connectivity

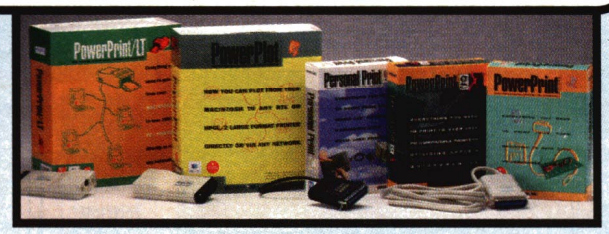
PowerNexus

PowerNexus is your LocalTalk to EtherTalk hardware bridge solution. The small, lightweight bridge will connect up to four of your LocalTalk networked computers, printers or other peripherals to your 10Base-T or Thin Coax EtherTalk network.

AutoSwitch

AutoSwitch is an inexpensive, automatic switchbox which includes all necessary cabling and adapters to easily share a printer between a PC and a Mac running a version of PowerPrint.

Mac to PC Printing Solutions



The PowerPrint family of products provides a complete solution that lets your Mac use virtually any PC-compatible printer.

PowerPrint: software and cable that allows your Mac to print to over 1000 PC-compatible printers

PowerPrint/LT: similar to PowerPrint, but 40% faster and designed for Macintosh networks

PowerPrint/GX: similar to PowerPrint, but designed for QuickDraw GX users

PowerPlot: similar to PowerPrint, but designed for printing to RTL and HPGL/2 plotters

Personal Print: similar to PowerPrint, but designed to print to the Magic Cap personal communicator

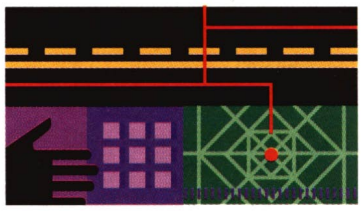
GDT SOFTWORKS INCORPORATED

SUITE 188, 4664 LOUGHEED HIGHWAY
BURNABY BC CANADA V5C 6B7
PH: 604.473.3600 FAX: 604.473.3699

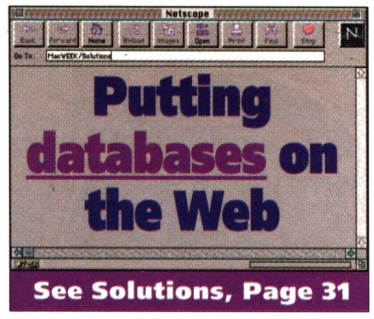
Call: 800.865.5501

Website: www.gdt.com

© 1996 GDT Softworks Inc. All product and corporate names are trademarks of their respective companies.



GATEWAYS



Windows apps via the Internet

Insignia NTrigue ICA client due

By James Staten

Insignia Solutions Inc. in August will reportedly let Mac users run 32-bit Microsoft Windows applications over the Internet.

Sources said the company is preparing NTrigue Net Client for the Mac, a new tool based on Intelligent Console Architecture (ICA). This protocol, developed by Citrix Systems Inc. of Coral Springs, Fla., is similar to but faster than X Window System. When combined with Insignia's NTrigue application server for Windows NT, the client-side ICA software will reportedly let Macs launch and interact with 32-bit Windows applications being run on a remote server over the Internet.

Under ICA, the user interface of a Windows program is delivered to a networked client, while all other functions are performed by the server. The ICA protocol runs over TCP/IP, IPX, Point-to-Point Protocol and NetBEUI, and can be carried on most data links, including ISDN and Asynchronous Transfer Mode.

Sources said NTrigue Net Client will let Mac users access Windows applications remotely with less of a performance hit than X-Window or remote-control applications inflict. In addition, the RAM and hard disk requirements for the ICA client will reportedly be lower than competing products. Insignia released an X-Window version of NTrigue in June.

Insignia is reportedly planning to release a beta version of its Mac ICA client in July; the final version is expected next month. Sources said pricing has not been set.

Insignia of Santa Clara, Calif., declined to comment. □

Apple says NT servers not in works

By Stephen Howard and David Morgenstern

Apple last week tried to squelch persistent rumors that it has licensed Microsoft Windows NT for future network servers. However, Apple Australia is already selling a pair of NT servers based on Motorola hardware.

Contradicting reports published elsewhere, Frank Nicolo, Apple server product line manager, said his group has not licensed NT and has no firm plans to use the OS with Apple-designed hardware.

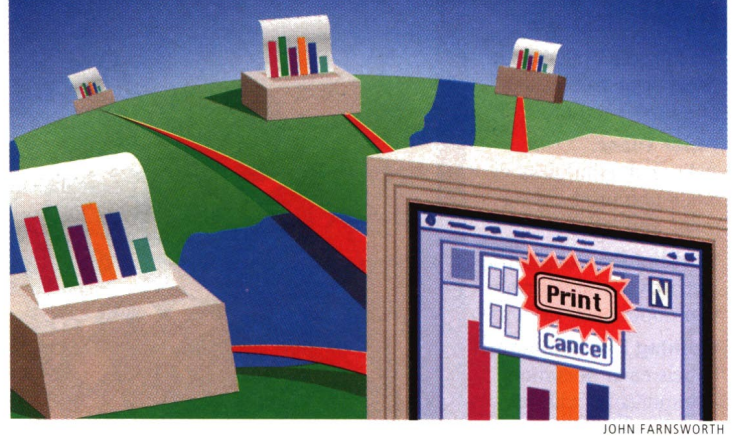
"Obviously NT is doing well in the market, and we have to look at that," Nicolo said. However, there has been no decision to build NT-based Apple servers, he said, and "an NT server OS is not a funded project — that's pretty much the bottom line."

Servers are now part of the Alternative Platforms Division, which also controls Apple's work on PowerPC Platform (PPCP) machines and PC Compatibility cards. Apple officials said previously that future high-end servers would be based on PPCP, which

See NT, Page 16

JetAdmin: A Chooser for the Internet

HP's new Internet printing software will allow documents to be sent over the Net and printed on any connected printer.



JOHN FARNSWORTH

HP readies tools for Net printing

By Leander Kahney

Hewlett-Packard Co. is taking the early lead in the race to be the standard for Internet and intranet printing.

HP said in the fall it will release JetAdmin for the Intranet, an adaptation of its widely used JetAdmin network printer software, which will let Internet- and intranet-connected printers be controlled from a Web browser.

This system will come just months ahead of comparable products being developed by Adobe Systems Inc., Lexmark International Inc., Tektronix Inc. and Xerox Corp., analysts said.

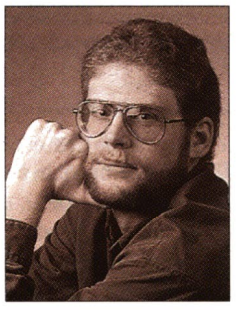
Based on HTML 1.0, HP's free printing software will support all HP and JetDirect-connected printers, the company said.

Among the promised features is the capability to print parts of a document rather than the whole thing and significant improvements in speed, formatting and

See HP, Page 16

WORKING THE NET ADAM C. ENGST

Multihoming latest woe for the Mac OS



A small but vocal group of Mac Webmasters have been raising a ruckus on various Internet mailing lists about an esoteric topic called multihoming. Why? The Mac OS can't do it and Unix, Microsoft Windows NT and even Windows 95 can.

Multihoming, in essence, is a technique that lets one machine host multiple Web sites. For the sake of simplicity, think of a Web site as a collection of files accessible via one domain name that is at the root of all the URLs for that site, such as www.company1.com. Supporting two or more Web sites on the same Web server requires that each site have its own root URL, http://www.company1.com and http://www.company2.com.

It's easy to use a domain name server to map www.company1.com, www.company2.com and www.company3.com so that all three point to www.company1.com, but you cannot have more than one default Web page. That's

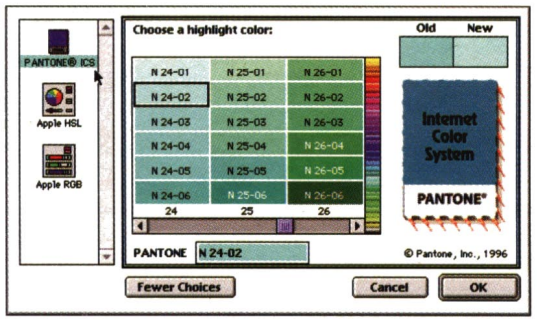
See Engst, Page 16

Pantone bringing color matching to the Web

By Matthew Rothenberg

Pantone Inc. is preparing to turn its color-management capabilities to the Internet with ColorWeb, a $29.95 utility slated to ship at the August Macworld Expo in Boston.

ColorWeb will comprise a system-level color picker and a swatchbook of colors with matching RGB, CMYK and HTML hexadecimal values. Pantone will also include values for Hexachrome, the company's six-color process, which lets users of Adobe Photoshop or compatible graphics applications manipulate orange and green as well as standard CMYK channels (see 03.04.96, Page 10).



Pantone's ColorWeb technology will include a system-level color picker honed for use by Web site designers.

A version of the ColorWeb technology will also run within ColorDrive, Pantone's color-palette-management software (see 10.16.95, Page 12). A ColorWeb library will be available free to ColorDrive users from Pantone's Web site.

ColorWeb will use Apple's ColorSync 2.0 to generate device profiles that can be embedded into GIF, JPEG or TIFF images for use on the Web. In addition, the company plans to offer plug-ins for Netscape Navigator that will color-correct images automatically.

Pantone said ColorWeb will be aimed at Internet catalog sites where inaccurate color representation is a top reason for product returns.

Pantone Inc. of Carlstadt, N.J., can be reached at (201) 935-5500 or (800) 222-1149; fax (201) 896-0242; http://www.pantone.com.

THIRSTY *for* STORAGE?

Quench your thirst with Pinnacle's award-winning **2.6 GB** Removable Optical Drive. Only **$1695** (MSRP) complete with one optical disk. Based on Pinnacle's unique optical technology, the Vertex™ boasts a 19 msec seek time, a maximum data rate up to 4.3 Megabytes per second, and a fast rotation speed of 3755 RPM. Making the **Vertex** the industry's highest *performance* 5.25" 2.6 Gigabyte rewritable optical drive. Vertex utilizes removable, high capacity optical media for unlimited storage. Fill up a disk, just pop in another. Data intensive applications such as digital video/audio, *graphics*, color prepress, imaging, networking, and data archiving all require the optimum level of data integrity, portability, and fast random access to your information. The Vertex can hold up to 2.6 Gigabytes of mass **storage** on a single cartridge that complies with industry standards for data interchangeability with other 2.6 GB drives. And now each *removable* disk has an estimated shelf life up to 100 years! Your storage choice is clear. Call Pinnacle Micro, the optical storage leader, today: **800-553-7070**

Now Shipping!

Vertex 2.6 GB External Mac/PC

BYTE

"The Vertex 2.6 GB is National Software Testing Lab's "Best Overall, Best High Performance and Best Value" Optical Drive Byte Magazine, May 1996

IMAGING MAGAZINE

Vertex 2.6 GB Best Performer Award April 1996

PINNACLE MICRO
THE OPTICAL STORAGE COMPANY®

Tel: 714-789-3000 • Fax: 714-789-3150 • http://www.pinnaclemicro.com

The Pinnacle Micro logo is a registered trademark of Pinnacle Micro Inc.
All other trademarks are trademarks of their respective owners.

HP

From Page 14

quality compared to current printing options. JetAdmin will also allow for up to to 600-dpi printing.

The software is the first from HP's Internet Solutions Operation, a new division based in Boise, Idaho. The new arm is promising a suite of printing and scanning products for the Internet and intranet.

"Paper-based communications will become significantly less important in the future," said Keith Brown, marketing manager at the new division. "We're approaching a point when instead of printing information and distributing it, it'll be distributed *before* it's printed.

"We want to make it possible to manage the Internet offramp — printers — and onramp — scanners — using just a Web browser," he said.

Paula Bursley, an analyst at Dataquest Inc. of San Jose, Calif., said HP's lead is "alarming" its competition. "HP is the biggest printer manufacturer out there. Where they go, the others have to follow," she said.

However, Bursley warned that the new software would support only HP printers and those fitted with a JetDirect EX box or JetDirect card. She was concerned that many of JetAdmin's features could not be translated to the Internet and intranet environments. "JetAdmin is one of the best solutions out there for managing printers on a network, but the question is, how much will they be able to migrate over?" she said.

Ed Pullen, research director at Computer Intelligence of La Jolla, Calif., was less cautionary, saying he felt HP's strategy is a "terrific idea." Pullen said the software presents countless possibilities for distributing information as printers become transformed into communications devices akin to fast, high-resolution color fax machines.

"Imagine the impact on national politics," Pullen said. "It could turn your color laser printer into a junk-mail repository, tying it up for hours with missives from politicians and exhausting all the ink. Wouldn't it be great?"

Hewlett-Packard Co. of Palo Alto, Calif., can be reached at (208) 396-2551 or (800) 533-1333; fax-back (208) 344-4809 or (800) 333-1917; http://www.hp.com/. □

Engst

From Page 14

bad when each client wants its top-level URL to point to *its* home page, not some generic default page for multiple clients or the home page of another company.

Other solutions

To get around this limitation Mac Webmasters can do several things. First, they can set up an inexpensive Mac for every secondary Web site. However, Bill Doerrfeld, president of Web hosting provider Blue World Communications Inc. in Issaquah, Wash., points out that this solution always ends up costing more than anticipated because of the need for additional space, more licenses for server software and any CGIs (Common Gateway Interfaces) used, and significantly increased maintenance.

A less expensive solution is the $399 HomeDoor from Open Door Networks Inc. of Ashland, Ore. HomeDoor is an application that returns the proper default page when clients request the home page of a secondary domain name. The problem with HomeDoor is that if the user requests http://www.company2.com/, the URL in the Location or Address field in the user's Web browser instead reads something like http://www.company1.com/company2/. The problem is cosmetic, not functional, and many people use HomeDoor happily. Unfortunately, these days the Web is all about cosmetics, and having a contaminated URL like that isn't ideal for some image-conscious sites. Perhaps more important, the contaminated URLs can confuse potential clients who want their own URL and don't understand why they can't have it.

A third possibility is a $189 CGI from Highware of Brussels, Belgium, called MultiHome, which reads the URL and redirects the request to the proper page. It too suffers from contaminated URLs, is slower than HomeDoor and doesn't work with all Web browsers.

When does relying totally on Mac OS solutions become merely a matter of overboard platform loyalty?

Apple's position

Based on comments found on the Internet, the Web hosting community believes Apple reneged on a promise to provide multihoming in the first version of Open Transport. Working from this assumption, many Web hosting providers made plans that have been stymied by the lack of multihoming on the Mac.

Apple's current official statement is that multihoming is a planned feature for a future version of Open Transport, probably Version 1.5, slated to ship toward the end of the year.

Best tool for job?

The question then is when does relying totally on Mac OS solutions become merely a matter of overboard platform loyalty? I'm as big an Apple supporter as most, but if my business relied on something I couldn't deliver using my Macs, I'd either work out a less elegant solution or switch to an OS that could do what I need. If you need true multihoming under the Mac OS today (or a Usenet news server, for that matter), you're simply not going to get it. Instead of moaning and groaning, take two tablespoons of grim reality, cut your losses and solve the problem using solutions that exist today. □

Adam C. Engst is editor of TidBITS and author of "Internet Starter Kit for Macintosh." He can be reached at interq@macweek.com or http://www.tidbits.com.

NT

From Page 14

could run a PowerPC version of NT. Yet Nicolo said continuing improvements for the AIX and Mac OS servers come first.

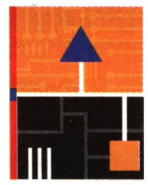
Meanwhile Down Under, Apple's Australian subsidiary is selling the PowerStack Series E from the Motorola Computer Group of Tempe, Ariz., with NT preinstalled.

Apple Australia is distributing the units, which carry a Motorola logo, in configurations costing between $14,000 and $24,000. The PCI systems are based on the PowerPC Reference Platform (PReP); PReP was the predecessor to PPCP.

Noting that different customers need different solutions, Graham Barr, Apple enterprise marketing manager in Sydney, Australia, said corporate and government customers wanted NT instead of Apple's current Mac and AIX servers.

Apple in Cupertino, Calif., said its foreign sales regions have the freedom to create bundles in their markets as needed. □

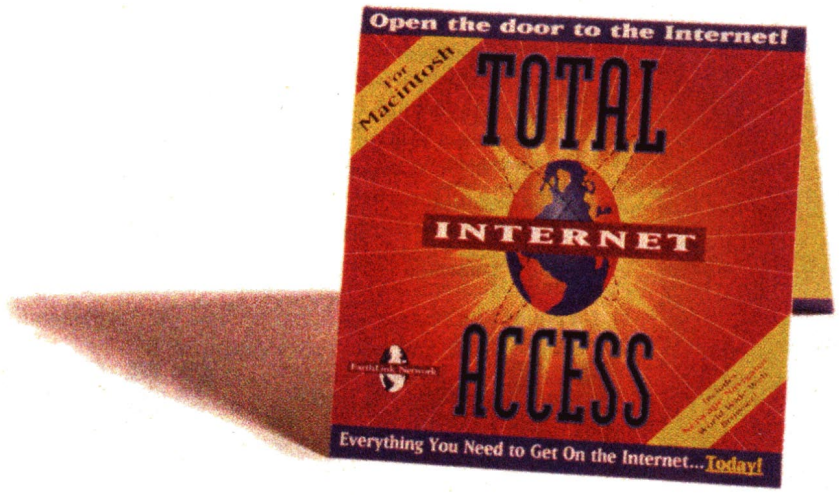
NETWORK TRAFFIC



- **Macromedia's Java-applet maker**
- **ATM SDK coming from Apple**
- **WebStar update patches hole**

Graphic artists can create Java applets without programming using AppletAce, a free Java-based design tool released last week by **Macromedia Inc.** of San Francisco. It lets users customize PowerApplets, a collection of animated applets prebuilt by Macromedia. The PowerApplets include image maps, banners, charts, icons and bullets; users enter customization information through a series of radio buttons, pop-up menus and text fields. ... Last week at Mactivity '96 in San Jose, Calif., **Apple** announced a new developers program aimed at increasing the number of applications that use Asynchronous Transfer Mode (ATM). The ATM Application Jump Start Program will cost $7,500 and will include a development license for Apple ATM middleware; a WS3000 Ethernet-to-ATM switch from Whitetree Network Technologies Inc. of Palo Alto, Calif.; two PCI ATM cards rated at 25 Mbps; and limited direct support from the Apple ATM Engineering Team. To qualify for the program, developers must mail an outline of their product development plans to atmdev@pop.apple.com. ... **Quarterdeck Corp.** of Marina Del Rey, Calif., last week posted free updates to WebStar 1.3 and MacHTTP 2.2 that plug a potential security hole in the two Web servers. In previous versions, users could enter a Web server's URL, such as http://www.company.com, append it with /M_A_C_H_T_T_P_V_E_R_S_I_O_N and receive configuration and statistical data about the Quarterdeck server. The WebStar update also fixes a bug that impedes plug-in performance. ... **International Transware Inc.** of Mountain View, Calif., last week shipped InterTalk MP, an Ethernet router with built-in fire wall capabilities. The $1,499 device features up to 50 different filters, so each network segment can have separate data- and device-protection settings, allowing administrators to keep zones free from Internet traffic. InterTalk MP supports TCP/IP, AppleTalk and DECnet protocols; it also features a MacIP gateway. ... **Natural Intelligence Inc.** last week cut prices on Roaster, its Java development environment, and shipped its debugger. A year's subscription to updates is now $199, down from $299. A new base version, which includes a free update, is $129. ... **CompuServe Inc.** of Columbus, Ohio, announced last week that it will report a loss of $14 million to $19 million for its first quarter, ended July 31. It attributed the loss to flat subscriber growth and costs incurred through infrastructure improvements and promotion of its new Microsoft Windows 95-only service for beginners, called WOW!. CompuServe's most recent figures show that as of June 30 the CompuServe Information Service alone had 3.4 million members — representing virtually no growth over the previous two months. ... **H&R Block Inc.** announced that it will complete the spinoff of CompuServe by transferring its remaining 80 percent stake in the company upon shareholder and government approval. □

Internet for Macintosh.
Install disks. Double click.



It's that simple.

EarthLink Network®

The coolest, easiest Internet access on Earth.

$19.95 per month. Flat rate. Unlimited usage.
Call now for your free EarthLink Network TotalAccess™
with Netscape Navigator™ 2.

1-800-395-8425

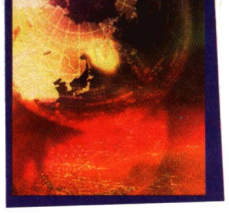
1995 BYTE POURNELLE'S USER'S CHOICE AWARD

Every account includes a FREE 2 meg Web site. Internet access in over 275 cities in the U.S. and Canada. Software for MACINTOSH, WINDOWS, WINDOWS 95, featuring Netscape Navigator 2. EarthLink Network is one of the largest Web space providers in the U.S. and also provides ISDN, Frame Relay, T1 and other Internet services. **There is a one-time set-up fee of $25.00. Prices for Canada are different.*

NETSCAPE NAVIGATOR™ INCLUDED

EarthLink Network, Inc. 3100 New York Drive, Suite 201, Pasadena, California 91107 Fax: (818) 296-2470.
Info via email: info@earthlink.net. Live human via email: sales@earthlink.net. Visit our Web site at http://www.earthlink.net

Copyright ©1996 EarthLink Network, Inc. All Rights Reserved. Trademarks are property of their respective owners. Netscape Communications, Netscape Navigator and the Netscape Communications logo are trademarks of Netscape Communications Corporation.



MacTemps has job openings all over the country. Here are just a few:

Atlanta, GA

Tech Support
Consulting firm in Northwest Atlanta seeking temp-perm candidate with FreeHand, Photoshop, Illustrator and PageMaker skills. Troubleshooting skills and dual platform knowledge essential.
Job #6856 **$28-31K/year**

Cleveland, OH

Senior Technician
Must be skilled in Novell, UNIX, and Sun Solaris. Must also have excellent communication skills.
Job #946 **$50/hour**

Web Maintenance
Candidate must be knowledgeable in CGI and Java. Make changes to clients' home pages.
Job #940 **$20/hour**

Tech Support Specialist
Help desk position supporting Macintosh hardware, HTML and Internet users.
Job #958 **$40K/year**

Denver, CO

Authorware Programmers
Strong proficiency with versions 3.0 or 3.5. Experience programming for CBT projects.
Job #4757 **$16.50+/hour**

Detroit, MI

Technical Support
User support for human resource consulting firm. Mac and PC environment. MS Office, PageMaker and general hardware issues.
Job #57944 **$38-42K/year**

Assistant Web Master
Position with an office supply company in Grand Rapids, MI. Responsible for design and content of company web page. Quark, Illustrator, Photoshop, and Mac OS.
Job #41407 **$16-22/hour**

Houston, TX

Technical Support
Work for a "Big Six" accounting firm. Mac platform, troubleshoot h/w, s/w and work with PowerBooks. Some DOS/Windows. Support MS Office and TCP/IP.
Job #58051 **$30-35K/year**

Mac/PC Tech
Nationwide company with Novell network needs to assign new users to the network and to e-mail. Move fast, working with Network Manager to handle emergency issues. Moving and setting up new end-user stations.
Job #51529 **$20-23/hour**

Miami, FL

4-D Programmers
Develop a front-end link for an Oracle back-end on Mac client machines running off a UNIX Server. 4 junior as well as senior positions. 6 month assignment.
Job #1193 **$30-50/hour**

Mac Programmer
Pascal, C++, Code Warrior. Must have experience with Mac comm toolbox. 3-5 years object-oriented development experience. 3 month contract position.
Job #1194 **$40-60/hour**

PC Programmer
PC environment. Pascal, C, and C++. 3-5 years experience with databases including Paradox, SQL and Borland's Delphi client/server a must. Will also consider Delphi desktop. Should have developed 32bit multi-threaded apps for Windows '95 and NT as well as be able to utilize NT resource kit for development of NT service applications. Possible temp-to-perm.
Job #1200 **$30-50/hour**

Philadelphia, PA

Computer Technician
Permanent placement. Individual highly proficient in MS Office And Word Perfect interface with staff to solve problems on a daily basis. Proficiency with a Windows 95 or Windows NT network necessary. Experience maintaining and expanding their LAN. Internet and www design helpful.
Job #5976 **$25-35K/year**

Programmer
Montgomery County. Looking for a temporary part time FoxPro programmer. Could possibly do evenings or take home. With heavy database experience in their background.
Job #5970 **$30/hour**

Computer Circulations Manager
Montogomery County. Full Time Job consists of handling/maintaining all office computers. Currently have two servers Mac and Novell. This will include upgrades software and hardware. Programming background helpful. Managing the circulation department. Overseeing 20 employees and mailing requirements their three newspapers.
Job #5971 **$24-40K/year**

Philadelphia, PA (cont.)

Online Services Manager
Looking for a candidate on a temporary basis. Must have Client Relations/Management experience. Heavy knowledge of online services, www development experience a big plus. Networking and Linking experience necessary.
Job #5972 **$18/hour**

Windows Programmers
Delaware County: Visual Basic, MSVisual, C++. Windows programmers wanted for young communications software firm. Looking to hire Full-time and Part time programmers. Creativity and Interface design important. Professionalism necessary. TEAM PLAYERS ONLY. Overtime or off hours should be anticipated.
Job #5973 **$30-60/hour**

Macintosh Programmers
Delaware County. Metrowerks Code Warrior. A young communications software publishing company. Looking for full and part-time persons. For now on a project to project basis. Interface design, creativity, and programming knowledge essential. Software development exp. a plus. PowerMac programming necessary.
Job #5974 **$30-60/hour**

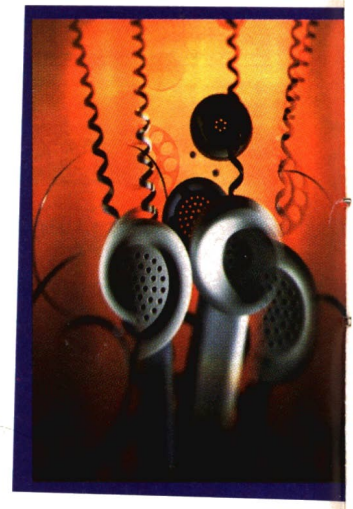
San Francisco, CA (cont.)

Network Administrator
Manage SF magazine's Appleshare network and provide technical support for 40 users. Quickmail, Retrospect, FileMaker Pro, network cabling and general Macintosh troubleshooting. Knowledge of phone systems and UNIX a plus.
Job #57929 **$40K/year**

Technical Coordinator
Fast-paced SF firm needs hardware and systems support. Knowledge of internal architecture necessary. WordPerfect 3.5, Excel, Lotus Notes, cc:Mail and Novell Netware. Cross-platform knowledge. Apple certification level 1 is a plus. Oracle experience a plus.
Job #58093 **$30-35K/year**

Schaumburg, IL

Mac Programmers
2 senior programmers needed. Work in C++. Take DOS-based Internet software and develop a Mac version. Internet knowledge is helpful, though not critical. Long-term project.
Job #10527 **$30-50/hour**



Help Wanted

technical positions available

San Diego, CA

Technical Support Technician
Growing publishing firm seeks a technician to support over 100 users in a predominantly Mac environment. Systems installation and trouble-shooting required. Graphics or prepress background would be a plus. PC and Windows experience preferred.
Job #4217 **$37K/year**

Technical Support
Installation, configuration and troubleshooting of 100+ Mac users.Scanning, imaging and trouble-shooting involving graphics software . Must have Mac and PC experience.
Job #4318 **$27-37K/year**

Programmer
C++ programming in a UNIX environment. Indy and Motix or x-Windows a plus for this temporary assignment.
Job #4321 **$30-40/hour**

Database Programmer
Reimplement network protocol component of formerly IPX-based server and clients using TCP/IP. Also take the app from 16bit to 32bit, and from Windows 3.1 to 95 and NT functionality. Original app is based on an OOP structure using MS C++. Cross-compiled with MS Cross Development System for Mac clients.
Job #4351 **$30-40/hour**

San Francisco, CA

MIS Assistant
For East Bay pharmaceutical company. Primarily Mac. Knowledge of Ethernet, Appleshare, MS Office, and Quickmail required. Installation, troubleshooting, end-user support and training involved.
Job #48266 **$35-40K/year**

Programmer
For East Bay software developer. 2-3 years experience in the commercial software industry developing Mac applications in C/C++. Work with Script Manager, TextEdit, WorldScript and File Manager. Knowledge of Windows API and/or the Mac Toolbox.
Job #48245 **$20/hour**

Silicon Valley, CA

Software Localization Engineer
Localize software for DOS, Windows, Mac & UNIX systems. Knowledge of debugging, quality assurance processes, version control, and translation-leveraging tools (IBM TM, XL8).
Job #40651 **$40K/year**

Macintosh Programmers
Hi-tech computer firm needs several Mac programmers. C++, MPW, and Code Warrior. Need to know QuickTime, QuickDraw, & Drag & Drop tools/menus. Some Graphics knowledge necessary.
Job #40882 **$25-40/hour**

Programmer
Develop communications software to interface with modems and ISDN connections. Working in C/C++ and Code Warrior for the Mac. Must know comm toolbox and be communications savvy.
Job #40875 **$50-75K/year**

Technical Support Representative
Sunnyvale manufacturing company in need of Mac specialists. Good phone/troubleshooting skills. Experience with XPress, Photoshop, Premiere, FileMaker Pro, & Excel needed. Possible temp-to-perm positions.
Job #40896 **$17-20/hour**

End User Support
Company is located in downtown San Jose. Candidate must be savvy with Mac & PC and have experience with troubleshooting and configuring systems. Long-term assignment.
Job #57999 **$15/hour**

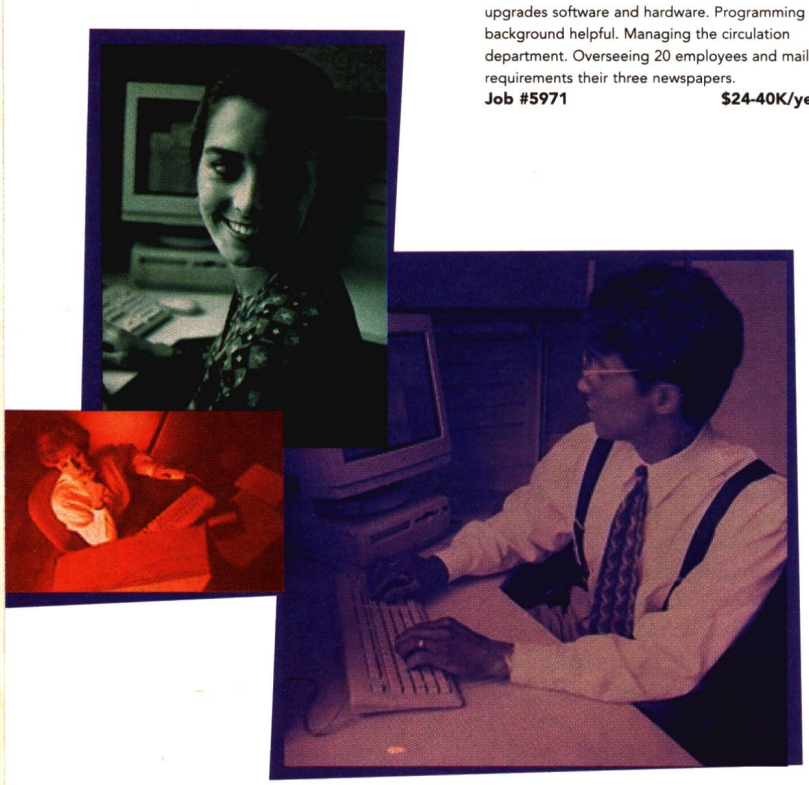
Database Developer
Database developer/administrator needed! FileMaker 3.0 is a must. Daily responsibilities include development and maintenance of in-house database. Long-term assignment.
Job #57977 **$20/hour**

End User Support
Candidate needed for a part-time position in Silicon Valley. Mac/PC experience and knowledge of MS Office ideal. Responsibilities include trouble-shooting, installations and configuring of systems. Long-term assignment.
Job #52144 **$17/hour**

MIS Manager
MIS manager needed for a major real estate firm in San Jose. Daily responsibilities include working with LAN servers, troubleshooting and dealing with networking issues. Candidates must have cross-platform knowledge. A permanent position.
Job #48455 **$31K/year**

Macintosh Technician
A Mac tech is needed for an electronics company in San Jose. Job includes installations, Mac h/w and s/w troubleshooting both for in-house and for Bay Area customers. Mac, PC and UNIX experience is needed. A permanent position.
Job #41482 **$35K/year**

End User Support
Work for a large firm located on the peninsula. Responsibilities include routine hardware & software support, installation and troubleshooting in a cross-platform environment. Long-term assignment.
Job #52152 **$17/hour**



If you're interested in one of these jobs, or if you'd like to register for future job openings, call us at 1-800-MACTEMPS, or e-mail us at techjobs@mactemps.com.

For even more jobs, visit our web site at http://www.mactemps.com.

MacTemps®

MacTemps has offices in these cities:
Atlanta, Boston, Chicago, Cleveland, Dallas, Denver, Detroit, Houston, London, Los Angeles, Melbourne, Miami, Minneapolis, New Jersey, New York, Orange County, Paris, Philadelphia, Phoenix, Pittsburgh, San Diego, San Francisco, Santa Clara, Seattle, Schaumburg, St. Louis, Stamford, Sydney, and Toronto.

CALL 1-800-MACTEMPS

Dartmouth monitors LANs with InterMapper

By Joanna Pearlstein

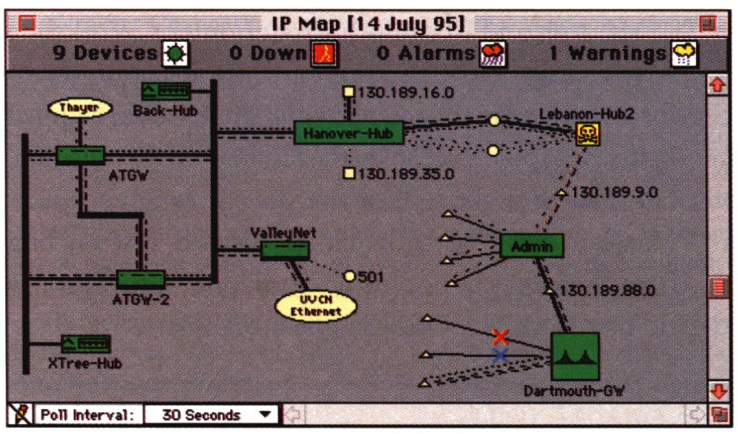
The university that brought a smiling dog to the world of FTP is targeting network management as its next frontier.

Dartmouth College, maker of Fetch, MacPing and BlitzMail, this month began shipping InterMapper, a graphical tool for mapping and monitoring networks. Priced at $795, InterMapper complies with SNMP (Simple Network Management Protocol) and can monitor both AppleTalk and TCP/IP devices.

InterMapper creates a graphical representation of a network, using boxes to represent network devices and lines to represent devices' connectivity interfaces. Network administrators can use InterMapper to create maps representing portions of a LAN; the software will show a summary window listing the status of monitored network devices.

Administrators can configure InterMapper to execute an AppleScript or automatically send an e-mail or alphanumeric page when it encounters problems on the network. InterMapper can also automatically launch applications when a network device is command-clicked, thereby enabling administrators to open troubleshooting applications to test servers and routers. The product also supports the freeware Internet Config preferences system.

Dartmouth College of Hanover, N.H., can be reached at (603) 646-2643; fax (603) 646-2810; intermapper@dartmouth.edu; http://www.dartmouth.edu/pages/softdev/InterMapper/. □



Dartmouth College's InterMapper creates a map of a LAN, monitors network devices, and can send an e-mail or page if trouble arises.

TechPool aims to improve faxes

By Joanna Pearlstein

TechPool Software Inc. has designs on improving the quality of faxes and shortening transmission times. It will ship such a solution at Macworld Expo in August.

StellarFax will not replace the user's fax software but will intercept documents before they are sent to the installed fax driver. It will then convert the document to a PostScript file and drop it into a folder. Items in the folder will then be rasterized, opened in a fax-viewing application and sent.

TechPool said the process of rasterizing a document improves its image quality and reduces its transmission time.

StellarFax will work with a variety of commercial fax software packages, including FAXstf from STF Technologies Inc., Faxcilitate from Diamond Multimedia Systems Inc. and GlobalFax from Global Village Communication Inc.

StellarFax will also let users drag and drop PostScript files onto the StellarFax application; those files are rasterized and then faxed.

TechPool said StellarFax is aimed at advertising agencies and graphic design firms that send graphically rich documents via fax machines. Company President Paul Veregge said use of StellarFax will reduce transmission times by up to 21 percent.

Pricing has not been set.

TechPool Software Inc. of Cleveland can be reached at (216) 382-1234; fax (216) 382-4825; info@techpool.com; http://www.techpool.com. □

Qualcomm releases Eudora Pro 3.0

Qualcomm Inc. this month shipped Version 3.0 of Eudora Pro for the Mac, its Internet e-mail client.

The new version provides improved mail filtering and find capabilities, support for embedded hyperlinks and Macintosh Drag and Drop, and improvements to Eudora's address book and interface (see 04.01.96, Page 1). New plug-in architecture lets third-party developers enhance the product's feature set.

Eudora Pro 3.0 is $89; upgrades are $39.

Qualcomm Inc. of San Diego can be reached at (619) 587-1121 or (800) 238-3672; fax (619) 658-2100; info@qualcomm.com; http://www.qualcomm.com. □

Turn Your Mac Into A Fax Beast

4-Sight Fax
Unleashes The Fax Beast In Your Mac!

Think of it. No more printing. No more walking. No more dialing (and redialing). No more standing and waiting. No more crumpled, wrinkled or unreadable faxes.

With 4-Sight Fax™ every Macintosh on your network can send and receive faxes with ease. It's much faster and easier than traditional "print and dial" faxing and far superior to individual, single-user or hardware-based fax solutions.

4-Sight Fax can significantly enhance your customer communications strategy. Call us today for details and your FREE demo disk.

4SIGHT™
1801 Industrial Circle
West Des Moines, IA 50265 USA
Phone: 515.221.3000
http://www.4sight.com

4-Sight Fax can and will unleash the communications animal in your Mac.

- Client-Server fax configuration for optimum efficiency
- Expandability up to 16 lines and thousands of users
- Broadcast Faxing
- Database integration
- Internet faxback
- Applescriptable
- E-mail integration
- Direct Inward Dialing option
- Macintosh AND Windows clients

APPLE WORKGROUP SERVER OWNERS
CALL FOR FREE SOFTWARE

GET 4-SIGHT FAX FOR YOUR NETWORK NOW. STOP WASTING TIME.
CALL TOLL-FREE: 1.888.44SIGHT (447-4448)

MacWEEK

Editor in Chief Rick LePage
Managing Editor Brenda Benner
Art Director Eleanor Leishman
Director/Editorial Programs Anita Malnig
Opinion Page Editor Mark Hall

NEWS
Executive Editor Stephen Howard
News Editor David Morgenstern
Senior Associate Editor/GA Matthew Rothenberg
Associate Editor/News Clifford Colby
Associate Editor/Gateways James Staten
Senior Writers Joanna Pearlstein, Kelly Ryer
Staff Writers Rebecca Gulick, Leander Kahney, John Poultney

REVIEWS AND FEATURES
Executive Editor Carolyn Said
Senior Editor/Features Catherine LaCroix
Senior Editor/Reviews Missy Roback
Associate Editor/Reviews Tom Geller
Editor at Large Dale Coleman
Editor Emeritus Henry Norr
Assistant Editor Monica Campbell
Contributing Editors Don Crabb, Ric Ford, Bruce Fraser, Connie Guglielmo, Steve Hannaford, Jonathan Oski

MACWEEK ONLINE
Associate News Editor/Online Marty Cortinas
Senior Editor, ZD Net/Mac Sasha Pave
Assistant Editor, ZD Net/Mac Joanne Helkenn

COPY DESK
Associate Managing Editor Mariann Hansen
Copy Chief John Batteiger
Senior Copy Editor Patricia Orsini
Copy Editor Christina Follmann

ART AND DESIGN
Assistant Art Director John Farnsworth II
Graphics Associate Gevin Shaw

PRODUCTION
Production Director Carlos Lugo
Production Manager Steve Spingola
Assistant Production Manager Bridgett Niekamp
Production Coordinator Jose Urrutia
Pre-press Manager Tim Manousos
Assistant Pre-press Manager Tamara Gargus
Senior Pre-press Technician Michele Kellogg

Group Publisher John Blake

Group Associate Publisher William P. Howard
Group Business Manager Mary E. Colbert
Group Business Analyst Christine Finn
Group Marketing Director Laurel Clark Skillman
Group Research Manager Tim Gaughan
Marketing Manager Renee Bula
Sales Development Manager Debra Cains
Marketing Coordinator Stephanie Walter
Director, Controlled Circulation Justin Williams
Assistant Circulation Manager Lorraine O'Shea
Circulation Assistant Josephine Chang
Assistant to Group Publisher Beth Ina
Assistant to Group Associate Publisher Annie Purinton
Assistant to National Sales Manager Gina Michelucci
Advertising Coordinators Elizabeth McGinnis, Jennifer Sawyer
Administrative Assistants Jasmin Araneta, Colleen Dasher, Jennifer Weiss

Editorial office: 301 Howard St., 15th Floor, San Francisco, Calif. 94105. Phone (415) 243-3500; fax (415) 243-3651; macweek@macweek.com

MacWEEK Online: http://www.macweek.com
CompuServe: go zmc:macweek

Advertising office: 950 Tower Lane, Foster City, Calif. 94404. Phone (415) 378-5600; fax (415) 378-6903.

Subscriptions: Customer Service Department, MacWEEK, c/o JCI, P.O. Box 10634, Riverton, N.J. 08076-0634. Phone (609) 786-8230.

Permissions and Reprints: Requests for permission to quote from an article should be directed to Chantal Tucker, Ziff-Davis Publishing Co., 1 Park Ave., New York, N.Y. 10016; fax (212) 503-5420. For price quotes on reprints, contact Ziff-Davis Reprints at (800) 825-4237.

MacWEEK is an independent journal, not affiliated with Apple Computer Inc. Apple and Macintosh are trademarks of Apple Computer Inc. Entire contents copyright 1996 Ziff-Davis Publishing Co. All rights reserved. Material in this publication may not be reproduced in any form without permission. MacWEEK is a registered trademark of Ziff-Davis Publishing Co.

BPA INTERNATIONAL

Back from the dead

To be a Mac development-tools vendor or not to be. That is the question. Symantec Corp.'s answer is to concentrate on hot, profitable Java tools and, according to our best sources, to put its traditional Mac C and C++ language tools on the back burner.

Apple, therefore, is faced with its own dilemma: reinvigorate its home-grown programming tools or leave that business to Metrowerks Inc. and Microsoft Corp. T-shirts claiming that MacApp was "risen from the dead" were spotted at June's MacHack conference, hinting at Apple's answer.

Despite the noncompete clause in its new contract with third parties, Apple needs to assure that there are great environments for Mac OS programming. At the Apple Worldwide Developers Conference in May, CEO Gilbert Amelio promised $18 million for development tools, and none of it should go to Symantec. That company will do just fine by following its business judgment and emphasizing Java, and Macintosh users will win if Symantec succeeds.

Rather than use the kitty to lure Symantec back to the C++ market where it has been beaten, Apple should invest the dedicated fund to bolster areas that might be weakened by the decreased competition. Mac OS 8, code-named Copland, and OpenDoc spring to mind.

High-quality, next-generation development tools for these technologies are crucial to Apple's interests and should dictate where the company puts its money. Let the market decide who gets the developer dollar for mainstream programming, and don't jump into the bubbling pool of Java tools.

MacApp and Macintosh Programmer's Workshop have swung on the pendulum of Apple commitment for years. It's time for an upswing. Metrowerks stepped in to save Apple's bacon on the last major OS transition, but since then the tools maker has grown and lost its Mac-centrism. With Symantec focused just on bug fixes, there may be no outside development-tool cavalry riding to save Mac OS 8. Saddle up, Apple. □

THE SECOND DECADE HENRY NORR

Wintel has got shelf space; Mac has something better

Apple is gearing up for a major battle to win — if necessary, to rent — more shelf space for Mac software in retail outlets. I suppose the company has to do it to support its developers and to combat the canard that "there's no software for the Mac."

I doubt Apple will get much of a return on this investment. No rational retailer is going to give equal treatment to a platform with a market share of less than 10 percent, and a few extra shelves or an Apple-logoed endcap won't turn around popular misperceptions about the availability of Mac titles.

Instead, the company should put its main emphasis on encouraging and publicizing alternative channels. In fact, although this won't win Apple any new friends among retailers, I think its aim should be to establish in the public mind that: "The Mac is the platform you can get software for without going to the store." (Hiring a copywriter will be a good first step for this program.)

The money's in the mail

One objective should be to make sure everyone knows what a marvel the Mac mail-order channel is. Sure, there are occasional glitches, and high fees for catalog placement are tough on small developers. But on the whole, MacWarehouse, MacConnection, MacZone, the online Cyberian Outpost (http://www.cybout.com) and the others offer great prices, great selection and great service. And nothing beats the convenience of ordering at any time and having the package on your doorstep the next morning.

Most experienced Mac users, of course, already know all this. PC Data, a market-research outfit in Reston, Va., recently released a list of the top 30 titles, by units, in major software distribution channels for April 1996. In mass-merchant stores, software-only stores, superstores and other stores, virtually all the titles listed were for Wintel; the only exceptions were a handful of hybrid CD-ROMs. But of the 30 highest-volume titles sold through mail order, 27 were Mac-only, and the other three were hybrid CDs!

Get the good word out

The problem is that first-time buyers, Wintel users and even casual Mac users often don't know about this alternative or don't appreciate its virtues. I'd rather see Apple working to address that problem than spending millions renting shelves in stores where the staff knows nothing and cares less about the Mac.

How? Buy ads in mass-market publications and include toll-free phone numbers and Web addresses for major mail-order outlets. Or include mail-order catalogs with every Mac sold. Set up and publicize a Web site — www.macsoftware.com seems to be free — with links and phone numbers for the leading Mac outlets.

Beyond mail order, the future clearly lies with electronic distribution, and there's a lot Apple can do — with minimal investment — to put the Mac out in front in that arena. But that's a topic for another day. □

Henry Norr, editor emeritus of MacWEEK, welcomes feedback in the MacWEEK forums on CompuServe or at henry_norr@macweek.com.

LETTERS

The defining difference

In your article "Apple's comeback challenge" (07.08.96, Page 1), it's reported that "Executives said Apple will seek to identify tasks for which it can offer 'distinctly superior user value.' " Again, it's just a matter of Apple realizing what everyone out here in the trenches already knows: AppleScript is the defining difference between the Macintosh and any other platform.

AppleScript automates and streamlines thousands of tasks every day in the business, publishing and communications markets. The recent Nexpo show contained brilliant examples of this, including The Weather Channel's AppleScript automation of its newspaper division. My hands-on AppleScript classes at the Apple booth were filled to capacity with users looking to take advantage of the built-in power of the Macintosh.

I hope that the executives at Apple are as aware of their product's strong points as the man on the street. Sadly, a visit to Apple's technology page on its Web site (http://www2.apple.com/documents/technology.html) does not even list AppleScript.

Sal Soghoian, president
Nyhthawk Productions
Charlottesville, Va.

Scripting for everyone

Henry Norr's 07.08.96 column (Page 30) was excellent. Frontier is a far better tool for getting a serious amount of work done. AppleScript is a far better tool for getting end users to develop their own automated routines. Both need continued enhancement.

Dave Charlesworth, product manager
Andyne Computing Ltd.
Kingston, Ontario

Not so dumb

Regarding the article "WYSIWYG HTML promise unfulfilled" (7.08.96, Page 22): If we follow the logic proposed by Jason O'Grady, professional typesetters should never have left behind their code-based CompuGraphic and Autologic typesetting machines. No, WYSIWYG HTML editing isn't all it might be. But there is something to be said for using a package such as Adobe PageMill to do basic page construction and then using Bare Bones Software Inc.'s BBEdit to tweak the code.

Make no mistake: As Web standards continue to evolve, WYSIWYG editing will continue to evolve with them. WYSIWYG brings the ability to create content down to the level of the average Joe and Jane. No doubt professional Web designers, much like professional graphic designers before them, will continue to bemoan the dumbing down of design. Their loss. Perhaps they should look for the vast untapped potential of both the new tools and the people who use them.

Brian J. Little, owner
The Imagination Workshop
Charlotte, N.C.

Retail not the answer

Thierry Daigneault makes the argument that Apple should purchase a retail outlet chain to push Macintosh hardware and software (07.08.96, Page 31). This is a bad idea. Apple has enough things to worry about without needing the additional burden of retail store management.

The Macintosh has become, unfortunately, something of a religion. Those who have them and use them wouldn't give them up for a bushel of Wintel boxes. Take CompUSA as an example. CompUSA scales back its Macintosh section because it isn't selling well. Macintosh owners won't buy from CompUSA because the selection is so small. Chicken-and-egg scenario.

In short, Mac users should learn from history. There was once a successful computer company that, during financial constraints, heavy losses and extreme competition, purchased a chain of consumer electronics stores, pumped some money into them and stocked their shelves with their own products. The retail chain failed after two years, and the computer company itself faded into memory: Atari Corp.

Steve Godun
New York

Galactic compatibility

Maybe Apple, IBM, Microsoft, Sun, et al. should take a page from the new movie "Independence Day." Jeff Goldblum plays your average hack who is able to easily interface his PowerBook with an alien computer system (presumably running an equally alien OS). He even codes and uploads an effective virus that disables the alien's defenses. And I didn't even see him use the Chooser. Now that's what I call cross-platform compatibility.

Richard Johnson, artist
New York

How to contact MacWEEK

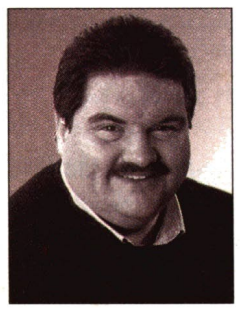
Send letters to MacWEEK, 301 Howard St., 15th Floor, San Francisco, Calif. 94105; fax (415) 243-3651. We can be contacted online: CompuServe, 76077,1351; Internet, letters@macweek.com. Include your name, address and phone number. We reserve the right to edit for clarity and length.

THE MAC MANAGER DON CRABB

Mystery package spurs the T-shirt theory, part 2

You can imagine my delight when the FedEx package arrived. Here it was, an oversize padded envelope with Gil Amelio's return address on it. I was beginning to tingle. Could it be a copy of a working Mac OS 8, code-name Copland? Since I had just given up trying to use the Mac OS 8 Version 0.4 Driver Development Kit, I was hoping this would be a version I could use to shut up all the Wintel weenies that confront me daily. But I knew immediately that Amelio would not be the source for this gem.

So, if not a usable Mac OS 8, maybe I'd find the details of how Apple intends to fix the multitudinous problems Amelio has found since he took the CEO job. You know, details on new products, revised distribution channels, a sales force that actually sells computers, stuff like that.



Or maybe the FedEx box had advance word on the latest movie blockbuster advertising tie-ins. After all, the "Mission: Impossible" and "Independence Day" promotions are about the only sign Apple has a pulse this summer.

Open the damn thing!

OK, so I'll open it. The suspense was killing me. I tear the package open and find ... four T-shirts. Four nice, long-sleeved, "Mission: Impossible" T-shirts. IN THE WRONG SIZE! And with a boilerplate note: "Complements [sic] of the Office of the CEO." This was the antiversion of my T-shirt theory of customer service (see Steamed Crabb, http://www.macweek.com/mw_1026/opinion_crabb.html). My theory is that companies that pay attention to customer service details usually perform the best.

Further, it was not sent to my University of Chicago address, which must live on hundreds of Rolodexes at Apple, is on my Web site, and appears in the sig at the bottom of each of the dozens of e-mail replies I send to Apple each day — many to folks with "assistant to the CEO" titles.

Instead, the package was sent to the general address of the university. I can only assume that the particular assistant to the CEO who did send me this package simply looked up the university's address of record and sent it there. A bad assumption, since the university does not work like a monolithic company. It does not use a central delivery room. It's a big institution spread over many city blocks. Amazingly, I got the package, because the FedEx driver knows me well. Better, apparently, then the package's sender.

Ranting or reflecting?

So, what's this rant got to do with you? It's not a rant, really, it's a reflection, one more time, on how well Apple listens: to its customers (like me), to the press (like me), to blowhard columnists (like me). The process should be a simple one: Make sure you get the messages clearly and then act accordingly.

In this case, I'm guessing that someone at Apple in the CEO's office read my column on customer service and my T-shirt theory. That person then said: "Hey, send Crabb four nice T-shirts. Show him we pay attention to our customers."

Unfortunately, they paid attention to the nature of my message but not to its specifics. This is a problem Apple has had for years. But in 1996, amid all its other problems, it's not enough that they just hear the message. They've got to understand it, too. □

Don Crabb welcomes comments at his Internet address decc@cs.uchicago.edu. You can also check out his home page at http://cs-www.uchicago.edu/~decc/.

"It's not organic, but I can guarantee that animals were not used in its testing."

Comments? Ideas? Contact Eli at elitoons@aol.com

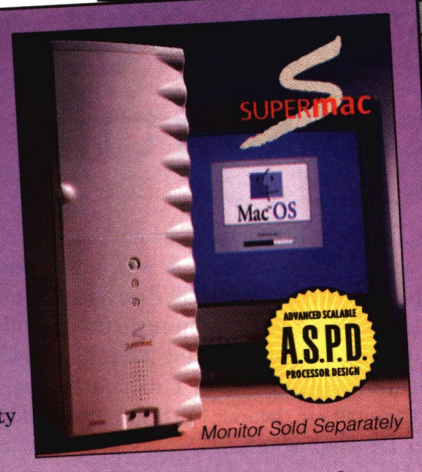
CDW® BETTER SAVINGS—

UMAX Computer Corporation

REAL PERFORMANCE AT A REAL PRICE

SuperMac S900L

Designed from the ground up with flexibility and power in mind, the S900L features UMAX's exclusive A.S.P.D. (Advanced Scalable Processor Design). This unique feature provides easy upgradability to dual processors.



Monitor Sold Separately

◆ 150MHz PowerPC™ 604 CPU ◆ 16MB RAM std., 1GB max. ◆ 2GB hard disk drive ◆ 512KB Level 2 cache ◆ Internal 6.7X CD-ROM drive ◆ PCI graphics accelerator card with 4MB VRAM ◆ 6 internal PCI expansion slots ◆ 5 expansion drive bays ◆ 16-bit stereo audio input and output ◆ Includes extended keyboard and mouse ◆ Included software: Casady & Greene Conflict Catcher 3; Asante Net Doubler; FWB CD-ROM ToolKit; FWB Hard Disk ToolKit; Mac OS

$3995.00 CDW 70197

***Build your own dream machine with the* SuperMac S900D**

◆ Includes all of the features of the SuperMac S900L, except the 2GB hard drive and PCI graphics accelerator card

$3095.00 CDW 70200

Remember, CDW® will custom-configure your new system for no extra charge!

APC AMERICAN POWER CONVERSION

HOT BUY! $99.86 CDW 70946

Pro Powercell UPS 400

High-performance power protection

Pick up a genuine APC Pro Powercell UPS 400 for an amazingly low price and enjoy the peace of mind that your valuable equipment is being guarded by one of the best names in the power protection business.

▲ Output VA/Watts: 400/250 ▲ Two outlets ▲ Maximum hardware protection ▲ Surge and lightning protection ▲ Estimated 10-15 minutes of runtime ▲ One year limited warranty ▲ $10,000 Lifetime Equipment Protection

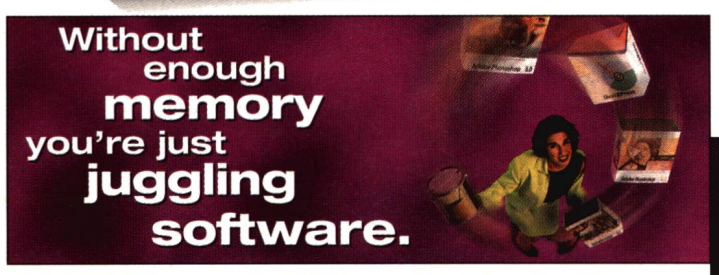
ALPS GlidePoint keyboard

NEW!

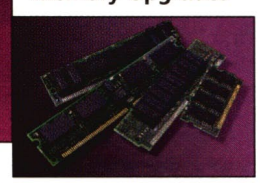
The next generation in Mac keyboard design

▲ Built-in Alps GlidePoint touchpad with three programmable buttons ▲ Saves desk space–combines pointing device and keyboard in one ▲ Erase-Eaze™ backspace key speeds typing ▲ Removable, contoured wrist rest ▲ Sleek sculptured design ▲ Limited lifetime warranty

$115.48 CDW 57103



Simple TECHNOLOGY Memory Upgrades



8MB DIMM for your Apple® Power Macintosh® 7200, 7500, 7600, 8500 or 9500

Mac OS

Every Simple Technology module is manufactured to exacting standards, guaranteed to be 100% compatible with your system, and comes backed with Simple Technology's lifetime warranty. What's better, there's a Simple Technology memory upgrade for almost every Mac OS® compatible computer including Power Computing, DayStar, and UMAX computers.

$115.58 CDW 56322

Rock Bottom Prices!

HEWLETT® PACKARD

HP LaserJet 5MP Printer

Laser printing at a practical price!

The HP LaserJet 5MP printer delivers outstanding print quality, versatile paper handling, and outstanding performance at an attractive price.

$1032.91 CDW 52179

✔ 600 x 600 dpi ✔ 6 ppm print speed ✔ 3MB RAM std., 35MB max. ✔ Adobe PostScript Level 2 and Enhanced PCL 5; 35 built-in PostScript fonts ✔ 250-sheet universal cassette tray, and 100-sheet multipurpose tray ✔ One LocalTalk port, two bi-directional parallel ports, one IrDA-compliant infrared port ✔ One year warranty

HOT CDW® HARDWARE & SOFTWARE

COMPUTER DISCOUNT WAREHOUSE™

MONITORS

NEC XV15+ 15" flat square	473.13
NEC XV17+ 17" flat square	799.84
MAGNAVOX CM4018 17" .28mm	636.08
MAGNAVOX 20CM64 20" .31mm	924.01
SONY 17sfII 17" Trinitron	775.83
SONY 20sfII 20" Trinitron	1635.53
RADIUS PrecisionView 17 17"	939.74
RADIUS PrecisionView 21 21"	2314.15
VIEWSONIC PT770 17" Graphics Series .25mm	845.99
VIEWSONIC PT810 21" Professional Series .30mm	1745.51

VIDEO CARDS

ATI Xclaim GA 2MB PCI	263.82
ATI Xclaim GA 4MB PCI	398.22
MATROX MGA Millenium 4MB PCI graphics accelerator	379.00
MATROX MGA Millenium 8MB PCI graphics accelerator	639.00
MATROX MGA Millenium 4MB WRAM upgrade	255.08
RADIUS Thunder 30/1600	1199.24
RADIUS ThunderColor 30/1600	1988.66

NETWORKING

DAYNA Bluestreak PCI adapter	203.46
DAYNA Bluestreak 100BTX Hub	1561.86
FARALLON Air Dock infrared connector	64.68
FARALLON Netopia Internet Router	1062.97

PRINTERS

HEWLETT PACKARD DeskJet 855Cse Printer	499.00
HEWLETT PACKARD LaserJet 5MP	1032.91
TEXAS INSTRUMENTS microLaser Pro/8	1103.88

MODEMS

GLOBAL VILLAGE PowerPort Platinum PC Card	325.29
GLOBAL VILLAGE TelePort Platinum V.34 desktop modem	194.73
GLOBAL VILLAGE TelePort Platinum Comm Slot edition	198.17
MOTOROLA BitSURFR Pro ISDN terminal adapter	353.80
PRACTICAL PERIPHERALS 28.8 V.34 external mini-tower w/fax	159.94
US ROBOTICS Courier V.Everything	273.51
US ROBOTICS Courier I-modem	479.32

STORAGE SOLUTIONS/CD-ROM DRIVES

FWB HammerCD 4X CD-ROM recorder	1406.26
FWB SledgeHammer 4GB Disk Array	2359.26
HI-VAL 8X SounTastic CD-ROM Kit	289.73
IOMEGA Zip drive 100MB SCSI external	199.00
IOMEGA 100MB Zip disk	19.00
IOMEGA Jaz Drive 1GB SCSI-II external	499.00
IOMEGA 1GB Jaz disk	124.00
MICRONET Advantage 1GB drive featuring "Jaz" external	566.68
MICRONET Advantage 1GB "Jaz" disk	116.38
MICRONET 2GB external DAT drive	967.37
SYQUEST EZFlyer 230MB external	291.47
SYQUEST EZFlyer 230MB cartridge	29.47
SYQUEST EZ135 external SCSI	119.23
SYQUEST 135MB EZ135 cartridge	19.45

INPUT DEVICES

ADESSO Soft Touch Plus extended keyboard	47.00
ADESSO Tru-Form extended keyboard	77.39
AGFA Arcus II with full version Adobe Photoshop	1995.00
AGFA StudioScan IIsi	698.32
ALPS Desktop GlidePoint	69.84
ALPS GlidePoint Keyboard	115.48
CONNECTIX Color QuickCam digital video camera	223.11
EPSON ES-1000C color flatbed scanner	737.82
EPSON ES-1200C ProMAC color flatbed scanner	1122.02
MICROTEK ScanMaker E3	379.77
NIKON Super CoolScan film scanner	1943.58
NIKON LS-20 Super CoolScan II	1165.32
NIKON AX-110 Scantouch color flatbed scanner	479.79
UMAX Vista-S6 w/full version PhotoShop	592.04
UMAX Vista-S12 w/full version PhotoShop	837.81
VISIONEER SCSI Adapter for PaperPort VX	62.99
VISIONEER PaperPort VX	274.94

MEMORY UPGRADES

SIMPLE TECHNOLOGY Power Mac 9500 8500 7600 7500 8MB	115.58
SIMPLE TECHNOLOGY Power Mac 9500 8500 7600 7500 16MB	221.41
VISIONTEK Power Mac 9500 8500 7600 7500 32MB	411.05
VISIONTEK Power Mac 9500 8500 7600 7500 64MB	947.94

CDW CIRCLE OF SERVICE®

If you find a better price, call CDW® before you buy

Fax: 847-465-6800 Sales: 800-529-4239

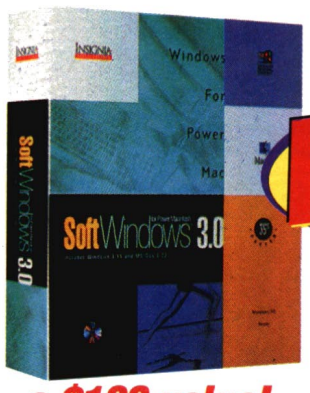
McWeek 1768 MacWeek 7/22/96

©1996 CDW® Computer Centers, Inc.

BETTER SERVICE!

CDW CIRCLE OF SERVICE®

COMPUTER DISCOUNT WAREHOUSE™



INSIGNIA SOLUTIONS

Free! with a Power Mac™ 7600 purchase*

Run thousands of Windows applications on your Power Mac™

Purchase an Apple® Power Macintosh® 7600 computer between 7/12/96 and 9/7/96 and receive a full version of Insignia SoftWindows V3.0 at no additional charge.

a $180 value!
CDW 71331

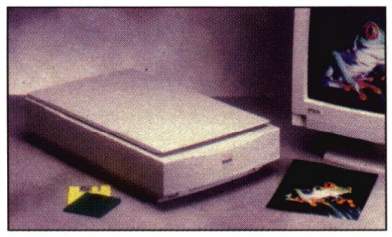
ES-1000C
Multifunction color flatbed scanner

MacUser EDITORS' CHOICE OCTOBER 1995

EPSON®

The Epson® ES-1000C scanning system features 30-bit internal color scanning and hardware-integrated Text Enhancement Technology™ which boosts OCR (Optical Character Recognition) accuracy.

◆ Resolution: 400 x 800 dpi (optical), 3200 x 3200 dpi (interpolated) ◆ 30-bit RGB color and 256 grayscale scanning ◆ One pass or three pass scanning ◆ Text Enhancement Technology (TET) ◆ Maximum document size: 8.5" x 11.7" ◆ Included software: Adobe® Photoshop™ LE V3.0, Xerox Textbridge OCR, Scantastic ◆ Interfaces: SCSI and bi-directional parallel ◆ Optional auto document feeder ◆ Includes SCSI cable ◆ One year warranty, two years with registration card



$737.82 CDW 54432

ES-1000C Accessories

Auto document feeder..... **$397.89** CDW 25705

Transparency unit..... **$631.61** CDW 52318

HEWLETT® PACKARD

HP ScanJet 4c flatbed scanner for Macintosh
Premium-quality color flatbed scanner

The ScanJet 4c color scanner makes it easy to capture high-quality images and text in a single, time-saving exposure. Includes leading scanner software to help you start scanning in minutes.

◆ Single-pass scanning ◆ 600 dpi optical, 2400 dpi interpolated resolution ◆ 30-bit color ◆ 8.5" x 14" maximum document size ◆ Included software: HP DeskScan II, Adobe Photoshop LE, Visioneer PaperPort™, Caere OmniPage LE OCR, HP ScanJet copy utility ◆ 1 year limited warranty

$938.66 CDW 60766

ScanJet 4c accessories

50-page automatic document feeder
$453.97 CDW 61579

Transparency adapter
$606.20 CDW 62705

SOFTWARE

ADOBE Illustrator V6.0 (3.5" + CD)	363.18	INSIGNIA SoftWindows V3.0 upgrade CD	67.02
ADOBE Illustrator V6.0 upg 5.X to 6.0, CD	89.96	MACROMEDIA Director V5.0 CD	817.78
ADOBE PageMaker V6.0 (3.5" + CD)	545.78	MACROMEDIA Director V5.0 upgrade CD	374.37
ADOBE PageMaker V6.0 upgrade	132.81	MACROMEDIA FreeHand V5.0 upg to V5.5 CD	75.57
ADOBE PageMill V1.0	88.65	MACROMEDIA FreeHand V5.5 CD	378.89
ADOBE Photoshop V3.0.5	545.78	METATOOLS Bryce V2.0 CD	158.82
ADOBE Photoshop V3.0.5 version upgrade	159.55	METATOOLS Kai's Power Tools 3 CD	111.41
ADOBE Type Manager V3.8	39.18	METROWERKS CodeWarrior Gold 9	303.27
CAERE OmniPage Pro V6.0	459.02	MICROSOFT Office V4.2.1	449.03
CAERE OmniPage Pro V6.0 upgrade	128.58	MICROSOFT Office V4.2.1 CD	449.31
CASADY & GREENE Conflict Catcher 3	58.54	MICROSOFT Office V4.2.1 upgrade	265.86
CLARIS Apple® Internet Connection Kit V1.1	45.17	MICROSOFT Office V4.2.1 upgrade, CD	265.72
CLARIS Emailer	41.73	MICROSOFT Visual FoxPro V3.0 CD	439.60
CLARIS FileMaker Pro V3.0	179.14	MICROSOFT Visual FoxPro V3.0 upgrade, CD	265.72
CLARIS FileMaker Pro V3.0 upgrade	91.95	NOW Contact/Up to Date V3.6 bundle CD	63.15
CONNECTIX RAM Doubler/Speed Doubler bundle	74.28	NOW Utilities V6.0 CD	77.12
FRACTAL DESIGN Painter V4.0	282.33	QuarkXPress V3.32 CD	639.11
FRACTAL DESIGN Painter V4.0 upgrade	122.16	STRATA Vision 3D V4.0	229.95
FRACTAL DESIGN Poser V1.0	85.92	SYMANTEC ACT! V2.5	148.18
FWB CD-ROM ToolKit™ V2.0	49.88	SYMANTEC Cafe	89.68
FWB Hard Disk ToolKit™ V1.8	117.28	SYMANTEC Norton Utilities V3.2	94.27
INSIGNIA SoftWindows 95 CD	319.17	SYMANTEC SAM AntiVirus V4.0	64.17
INSIGNIA SoftWindows 95 upg CD	139.27	SYMANTEC Suitcase V3.0	65.43
INSIGNIA SoftWindows V3.0 CD	287.05		

CDW® is an Apple Authorized Catalog Reseller

Call today for your FREE catalog subscription.

Authorized Catalog Reseller

THE CDW® ADVANTAGE

Competitive prices on the latest products. After all, Discount is our middle name so we work closely with our vendors each and every day to negotiate the best prices, then we pass the savings along to you.

Knowledgeable, helpful Account Executives.
Each CDW Account Executive is a graduate of CDW® University, the industry's most comprehensive training program.

FREE custom system configuration.
CDW® will add memory upgrades, networking cards, you name it to your new computer system for free, and in most cases, we'll ship it the same day.

Fair, honest, economical shipping rates.
We don't mark up our prices to cover the cost of "free shipping".

Lifetime, professional, toll-free technical support at convenient hours.
Our factory-trained support technicians stand ready to help our customers Monday through Friday 8 a.m. to 9 p.m. and Saturday 9 a.m. to 5 p.m.

Quick and accurate shipping. 97% of all credit-approved orders placed by 9:00 p.m. CDT are shipped the same day they are placed.

$2.99 UPS ground shipping on any order under $200!

800-529-4239

FAX: 847-465-6800 **(4CDW)**

www.cdw.com

CDW® SALES & TECH SUPPORT HOURS
Sales Monday-Friday 7am-9pm CDT, Saturday 9am-5pm CDT
Tech Support for Customers
Monday-Friday 8am-9pm CDT, Saturday 9am-5pm CDT

MOTOROLA

Motorola BitSURFR Pro
ISDN terminal adapter for Macintosh
Professional high-speed digital communications for your office or home

NEW!

BitSURFR Pro is a terminal adapter for the high-speed, digital ISDN telephone service. This device features two analog POTS ports plus Multilink PPP, AIMux and bonding support for 128K bps connections. Ideal for the office or work-at-home users, BitSURFR Pro is an all-in-one combination of hardware and software ready to connect your computer, telephone, analog modem and/or fax machine to ISDN.

Only! **$353.80** CDW 67525

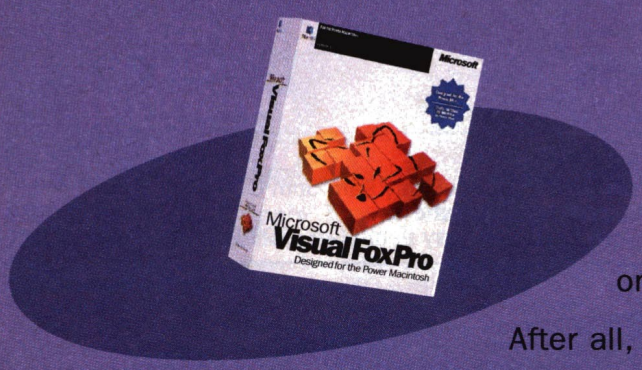
Credit card charges are not submitted until time of shipment. For your protection, we ship only to your credit card's verified billing address. Freight is calculated as the carrier's actual freight charge plus insurance and packaging material. The cost of insurance is 0.35% (0.0035) of the order total. Packaging materials will not exceed $4.00 for single package shipments or $6.00 for multi-package shipments. Before returning any product, you must obtain an RMA number. Non-defective returns are subject to a restocking fee. Software, chips and other electronic components are not returnable. Allow 10 business days for shipping when paying by personal check. All pricing subject to change. For all prices and products, CDW reserves the right to make adjustments due to changing market conditions, product discontinuation, manufacturer price changes or typographical errors in advertisements. All trademarks and registered trademarks are the sole property of their respective owners.

AMERICAN EXPRESS · VISA · MasterCard · DISCOVER NOVUS

BUY WITH CONFIDENCE
CDW® IS A NASDAQ TRADED COMPANY
TICKER SYMBOL CDWC D & B rated 5A1 Duns 10-762-7952

©1996 CDW® Computer Centers, Inc. McWeek 1768 MacWeek 7/22/96

Ever since Fred got the new Visual FoxPro for Power Macintosh, he catches the Frisbee every time.



And perhaps more importantly, he also gets his work done in record time. Thanks to Microsoft® Visual FoxPro™ 3.0 for Power Macintosh,® one might say that Fred's productivity is positively soaring.

After all, the powerful object technology of Visual FoxPro lets him create class libraries with inheritance and encapsulation and therefore reuse code quickly and easily. Fred has no trouble integrating data, either, whether it's located in applications, client/server databases, or local datastores. And because of Visual FoxPro's complete binary compatibility, he can develop in the familiar Mac™ environment and rest assured that all code, including Visual FoxPro objects, will run in Windows® 3.1 and Windows 95 operating systems with no modifications.

To find out more about the power of the Visual FoxPro 3.0 database management system, just point your mouse to http://www.microsoft.com/devonly/. Or give us a call at **(800) 621-7930, Dept. A334DS**, in the 50 United States.*

Microsoft

WHERE DO YOU WANT TO GO TODAY?™

*In Canada call (800) 563-9048; outside the U.S. contact your local subsidiary. ©1996 Microsoft Corporation. All rights reserved. Microsoft and Windows are registered trademarks and Visual FoxPro and *Where do you want to go today?* are trademarks of Microsoft Corporation. Power Macintosh is a registered trademark and Mac is a trademark of Apple Computer, Inc. Frisbee® is a trademark of Mattel, Inc. Used with permission.

VIEW IMMEDIA NOW

Download the pre-release version of the QuarkImmedia Viewer from Quark's Web site: http://www.quark.com.

BETA TEST

QuarkImmedia eases XPress users into multimedia

By Sherry London

New XTension from Quark lets users change XPress docs into interactive projects.

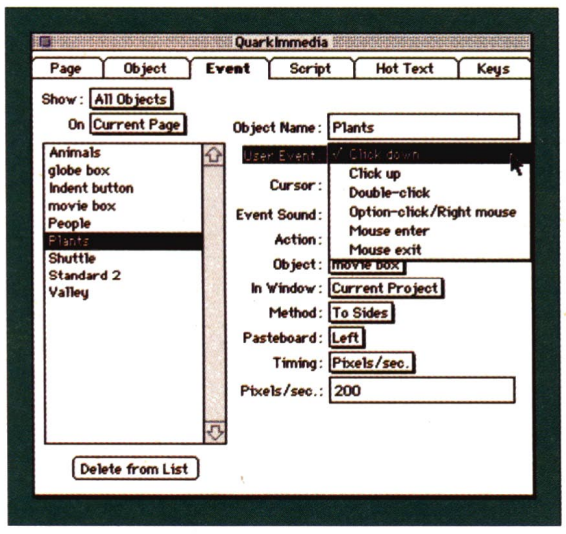
In a world where "repurposing" has become a buzzword, QuarkImmedia stands to deliver. This QuarkXTension, currently in beta, lets you change QuarkXPress documents into interactive projects — and does so with an ease that may have current XPress users cheering.

Due to ship by September, Quark Inc.'s Immedia is a Macintosh-only XTension, but its exported applications can run on Mac or Microsoft Windows machines. It requires XPress 3.32 or later and will sell for $995, the same list price as XPress. Users of XPress, however, will be able to purchase it for $495 for a limited time.

Immediaface

Immedia adds a pull-down menu and a tabbed Immedia palette to the basic XPress interface. The palette, with panels for Page, Object, Event, Script, Hot Text and Keys, offers fast access to most of Immedia's commands.

Quark's marketing literature extols Immedia's intuitive interface and ease of use, and the company has reason to be proud: Immedia provides XPress users a very gentle introduction to the world of interactivity. If you've used XPress long enough to be able to place images and pour text into boxes, you should be able to create simple interactive applications within an hour of opening the Immedia box.



The Event palette lets you link actions to specific user events. Here a box is being set to slide off the screen when a user clicks down on another box.

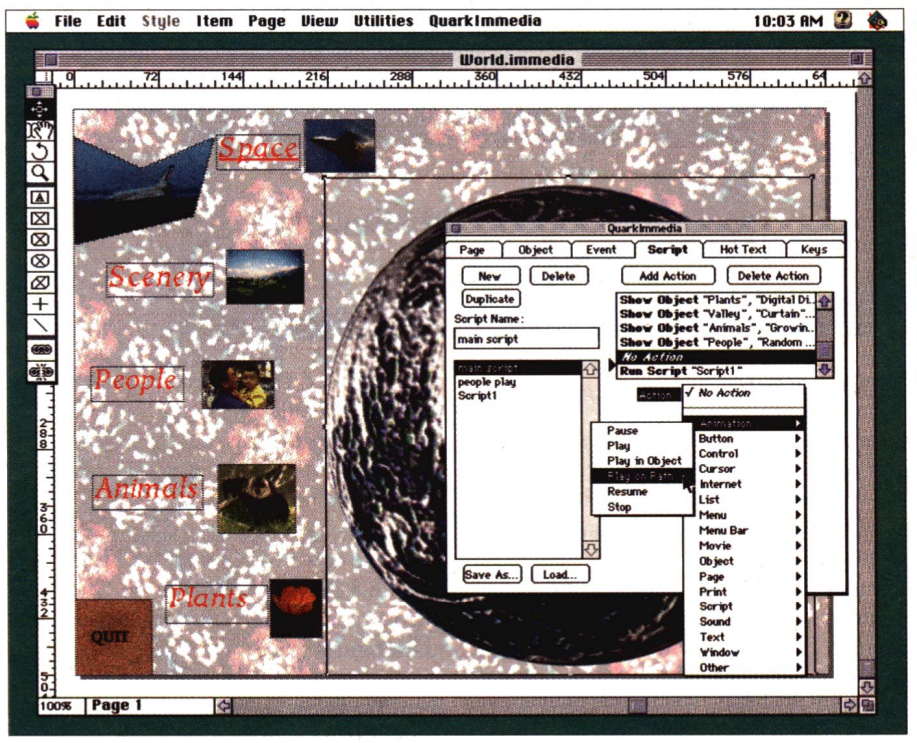
Laying it all out

Creating an Immedia project is a straightforward process. First, lay out your document in XPress: Text and photos are handled as usual, but picture boxes can also hold QuickTime movies and animations imported in PICS format. You can create buttons to control program flow, and you can specify transition effects. You may also create custom menu items for the project.

You make text and picture boxes interactive by defining them as Immedia objects. You then attach Actions to them (such as playing a movie, animation or sound) in a pull-down list of commands in the Event palette. These commands can be gathered into scripts that perform a series of specific tasks.

Scripts in Immedia are created by selecting a series of actions from a pull-down menu. Although programming skills are not needed, the commands offer a lot of power. There are no variables, but you can save invisible text fields and write status information to them, which you can check by using branching and looping commands. This is a decent substitute for variables in simple applications.

One advantage Immedia has over competing authoring products such as Macromedia Director is that it can fully use XPress' text-handling engine. This gives you access not only to typographic controls such as kerning, leading and letter spacing, but also to goodies such as drop caps and style sheets.



The tabbed Immedia palette offers fast access to most commands in QuarkImmedia. You create scripts in Immedia by selecting a series of actions, such as play animation on a path, from a pull-down menu. These scripts can be saved and reused as needed.

There are other nice features as well. An Animation on a Path facility lets you use a polygonal XPress picture box as a trail for your animation to follow. A single picture box can hold several animations or movies. You can loop sounds, animations and movies, and create libraries of custom cursors and buttons. You can also implement a full hypertext facility.

While Immedia has tremendous potential, not all features are implemented with equal sophistication. For example, the

See Immedia, Page 28

Claris delivers a top-notch HTML editor in Home Page

By Dave Taylor

Claris Corp. didn't waste any time releasing a beta of its new WYSIWYG Web page editor, Claris Home Page — and that's good news for expert and novice Webmasters alike, because it's a delight to use. We tested beta Version 1.0b1 of Home Page, which Claris acquired from its creator, San Andreas Systems. While its feature set is impressive, the application is somewhat undermined by quirks.

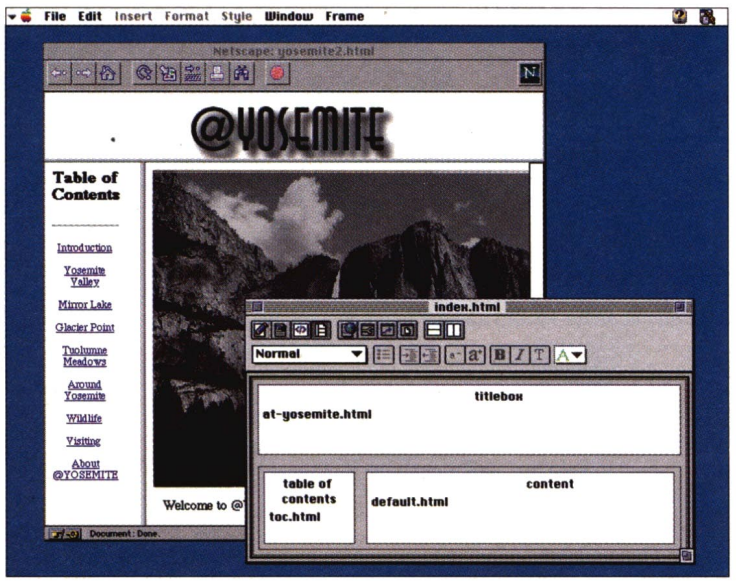
Home Page, formerly code-named Loma Prieta, should be released before the end of summer. Pricing has not been set, but Claris said it will be "extremely competitive." The public beta is available at Claris' Web site.

To build pages, you use tools similar to those in current market leader Adobe PageMill 1.0 (see 01.08.96, Page 88). Home Page includes tools for adding graphics and horizontal rules, centering and aligning text and graphics, styling text, creating bullet lists, and specifying levels of headers. The program supports Drag and Drop, so it's easy to add graphics and text via the Scrapbook.

The act of creation

Home Page lets you set various page attributes, such as background colors, although it lacks controls to make these attributes the defaults on all pages in a site. There's no option to save all open windows, but the Auto-save feature almost makes up for this omission. It's necessary to switch between

See Home Page, next page



Creating sophisticated multiframe pages is a breeze with Claris Home Page. Here you see the page as designed and as it appears in Netscape Navigator.

Home Page

From previous page

Home Page and a Web browser to view frame-enabled pages. Since the likelihood of system problems increases with the number of applications running, this Auto-save feature is greatly needed as insurance against such crashes. (Tool-bar buttons can switch Home Page's view among Edit, Preview and Edit HTML Source modes, but the Preview mode isn't as robust as a stand-alone Web browser.)

Building tables is easy, although per-cell coloring isn't supported. Image maps are a breeze to create with the Image Map utility, but it takes a bit of poking around to figure out where the .map files are saved. Client-side image maps aren't part of this beta, nor are they expected to be in the release version.

Form development is available but weaker: The lack of an overall "form wrapper" means that a page can hold no more than one form. Home Page provides no system to process data submitted from the forms you create; indeed, this server-level functionality is beyond the purview of all other HTML editors as well. That's too bad, because managing submitted data is the hardest part of working with forms.

Home Page's most advanced capability is that it can create multiframe pages, which are independently controlled mini-windows embedded inside the Web browser's overall view. (Several other upcoming Web creation tools also promise to create frames, such as PageMill 2.0, due this summer.) However, Home Page provides no master style sheets or other frame preferences that would make the complex process easier. While basic frames are available, some advanced frame-building capabilities, such as the borderless frames in Microsoft Corp.'s Internet Explorer, aren't supported.

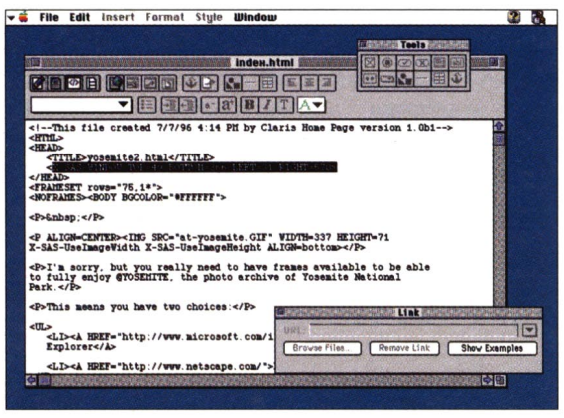
A special kudos goes to Claris for providing page download estimate times for 14.4- and 28.8-Kbps modems in the Document Statistics page. Hopefully, people will check these figures when building pages.

Proliferating tags

Home Page is highly customizable, with specific preferences for HTML output and editing, image manipulation, and browser preview. You can also specify some of the nitty-gritty details, such as the sort of line breaks and tag styles that will appear in your finished HTML file.

The program, by default, adds its own information to the HTML source for window location and size. Home Page also makes it easy to add specialized HTML code. Fortunately, Web browsers ignore tags they don't understand, so they will be interpreted only by more-advanced browsers.

While it's easy to create Web pages from scratch in Home Page, working with existing pages is more difficult. One test page with the basic Right Align Image and Left Align Image tags confused Home Page: It understood them but didn't display them properly. Other tags, such as the Basefont tag, and special characters, such as the ampersand (properly written in HTML as &), threw Home Page for a loop and were displayed as errors. Fortunately, you can edit HTML directly in Home Page — a feature left out of PageMill 1.



Although it works well as a WYSIWYG editor, you can also edit HTML within Home Page. It includes custom tags and alternate text for browsers that don't support frames.

Conclusions

Despite minor flubs and omissions, Home Page promises to be a solid competitor in an increasingly crowded field. Its handling of tables and frames show that this is not merely a me-too product. No currently available Web authoring tool offers such a strong feature set. We commend Claris for working to bring Home Page to market so quickly.

Claris Corp. of Santa Clara, Calif., is at (408) 727-8227 or (800) 544-8554; announce@claris.com; http://www.claris.com. □

REVIEWS IN BRIEF

UserLand's scripting system fulfills its manifest destiny

Frontier 4.0.1 ◆◆◆◆

The Macintosh scripting showdown escalated earlier this year when UserLand Software Inc. announced Frontier 4.0. This powerful scripting environment, now available, is the first Power Mac-native, multithreaded, OSA-compliant scripting language for the Mac. Like AppleScript, its main competitor, Frontier 4.0 is free; it is available for downloading at UserLand's Web site.

When we reviewed Frontier beta 4.0b2, we found it to be fast (see http://www.macweek.com/mw_reports/rev_frontier.html). Tests showed its UserTalk language to be eight to 50 times as fast as a comparable AppleScript. But raw speed is not the only advantage propelling Frontier into the high-noon spotlight. When CGIs (Common Gateway Interfaces) run under the multithreaded Frontier, they outperform their single-threaded AppleScript brethren, allowing multiple clients to access a CGI simultaneously. Further, you don't need to significantly rewrite AppleScript CGIs in UserTalk: They can be run with only minor modifications.

Webmasters will appreciate these advantages, as Frontier works especially well in tying together Internet applications. Specifically, Frontier has cannibalized the features of UserLand's Web-site management software, Clay Basket, for this release.

Where do you put it all?

Frontier's object database, a feature that AppleScript has never had, is more than a hierarchical storage place for tables of scripts. Stored objects such as PICTs, constants and menu bars are tucked away in the database, accessible by Frontier and integrated applications.

This seemingly innocuous storage feature buys scriptors plenty of raw power and control. For example, Frontier can process a raw text file into HTML by using object database information such as link data, macro expansions, page templates or graphics. After proofreading in a scriptable Web browser such as Netscape Navigator, you can migrate the file to a live Web site via FTP with a single command. You can even create multi-author Web sites by scripting received by e-mail through the object database and into Web pages.

Scripting in Frontier is by no means a job for beginners, but we found coding in UserTalk to be easier and more consistent than writing AppleScript scripts. Don't expect any hand-holding from UserLand. Since Frontier is freeware, the company provides no technical support.

Frontier's integration with other scriptable applications is excellent. Many of them support Frontier's menu-sharing mechanism: Menus stored in Frontier appear in applications that support menu sharing, thereby closely integrating such products.

Frontier handles Open Scripting Architecture (OSA) languages, so AppleScript users can easily profit from Frontier's environment, gaining the use of more than 600 UserTalk verbs, the object database, and (with a little tweaking) the capability to run their AppleScript CGIs as multithreaded scripts. To an AppleScript user, Frontier can be seen as the ultimate OSA extension.

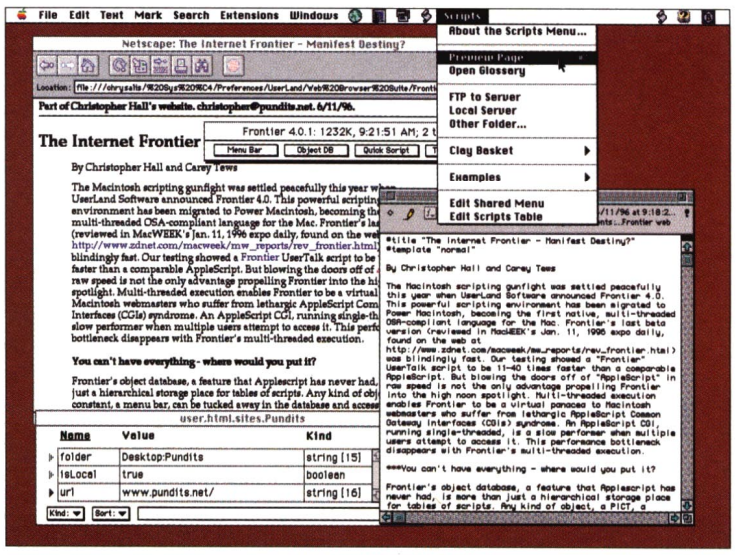
Conclusions

Frontier 4.0.1 has leveraged its advantages into a superb freeware scripting tool, especially for Webmasters. It makes multi-author site management, updating and link validation easier, while enabling multithreaded CGIs and providing a rich environment for writing both AppleScript and UserTalk scripts.

When we reviewed the beta we concluded that every Mac scriptor should take a new look at Frontier. Although it's a difficult system to learn, that "should" becomes "must" for Mac Webmasters.

Frontier 4 is available at UserLand Software Inc.'s Web site at http://www.scripting.com. — *By Christopher Hall and Carey Tews*

Briefs continue on Page 28



Through UserLand Software's Frontier 4, an edited text file is being automatically processed into a Web page. Frontier's main window and a table from its Object Database are also shown.

Nobody Out-Trons SonicTron™. Not even Trinitron®.

Today, the market is full of Trinitron®-like technologies. And while most companies are satisfied with simply cloning it, ViewSonic® has improved it.

SonicTron™, ViewSonic's newest color screen technology gives even the most demanding Macintosh® owners, desktop publishers and graphics users vivid, saturated colors and high contrast images so intense they're staring in wide-eyed amazement.

The experts agree.

SonicTron has been getting some pretty impressive reviews. Says Jerry Pournelle in *Byte* magazine, "The User's Choice Award for this year goes to the ViewSonic Professional Series PT810."

MacUser gave it a 4-mice rating and added, "It boasts image quality so good even demanding graphics artists and desktop publishers will be pleased."

Computer Reseller News gave the SonicTron PT770 their Editor's Choice award in April, 1996.

The price is right.

Both ViewSonic's PT810 and PT770 SonicTron monitors deliver astonishing clarity—and pricing the other Trons can't get close to.

Ranging from 17" to 21" (15.9" to 20.0" viewable), SonicTron has an aperture grille mask for sharp focus and brilliant color, OnView® controls for easy screen adjustments and Colorific™ software to insure that printer and monitor color profiles match perfectly.

A limited 3 year warranty on CRT, parts and labor, and an optional Express Exchange℠ Service program that insures 48 hour replacements are also part of the deal. If you'd like to see the Tron that all the others look up to, call your reseller.

Or, for more information, call (800) 888-8583 ask for agent 5646.

Model	ViewSonic PT810	Sony 20sfII	ViewSonic PT770	Sony 17sfII
Aperture Grille Pitch	0.30mm	0.30mm	0.25mm	0.25mm
CRT Size	21"	20"	17"	17"
Viewable	20.0"	19.1"	16.0"	16.0"
Horizontal Scan Rate	30-96 KHz	30-85 KHz	24-82 KHz	30-65 KHz
Maximum MAC® Resolution	1600x1200	1280x1024	1280x1024	1024x768
Color Control	Yes	Yes	Yes	No
CRT Warranty	3 Years	2 Years	3 Years	2 Years
MSRP*	$1,995	$2,299	$945	$1,099

* MSRP as of May 1, 1996. Prices and specifications subject to change without notice.

ViewSonic®

ClubMac® 800-258-2622 Source Code: WWS596

CDW 800-339-4239

MacMall 800-560-6800 2FT3651

PC & Mac Connection 800-986-2271

The Mac Zone 800-248-0800

MacWAREHOUSE 800-255-6227

(909) 869-7976 Fax: (909) 869-7958 • Call FaxSonic™ at (909) 869-7318 (24-hour fax-on-demand) Request Docs. PT810–163, PT770–152 • Internet: http://www.viewsonic.com

© 1996 ViewSonic Corporation. • Corporate names and trademarks are the property of their respective companies. • Trinitron® is a registered trademark of Sony Corp.

You can create real-time animations of your image distortion in MetaTools' Kai's Power Goo by setting keyframes in the filmstrip under the main image. Goo is bundled with Kodak's DC-20 digital camera.

Kodak DC-20 is a light, affordable digital camera

DC-20 ◆◆◆◆

The new DC-20 from Eastman Kodak Co. not only is the smallest and lightest digital camera we've seen, it's also the least expensive, with a list price less than $350. Its relatively low resolution makes it of marginal use for print applications; it's clearly designed to let nonprofessionals quickly and easily create images for online viewing. To this purpose, the camera is a success.

The camera measures 4 by 2.5 inches and weighs about 4 ounces without the included 3-volt lithium battery. The controls could hardly be simpler — just three buttons for On/Off, Shutter and Erase All. Three LEDs show Power On, Camera Busy and Memory Full. A mini-jack socket allows the supplied cable to connect the camera to a serial port. There are no other controls.

The QuickStart Guide basically says "load battery in camera, frame subject in viewfinder, press shutter." That's about it. The viewfinder is pleasantly sharp and bright, and unlike many low-end digital cameras, the shutter release is instantaneous, so you can capture fast-moving subjects such as kids. The camera's 1-Mbyte memory can hold eight high-resolution (493-by-373-pixel) images or 16 standard-resolution (320-by-240-pixel) images. You must connect the camera to the host computer to switch resolutions, and you can't mix and match — all pictures in a session must be the same resolution.

The accompanying software, PhotoEnhancer Special Fun Edition from PictureWorks Technology Inc., is similar to the software in Kodak's other low-end cameras. A control panel lets you take pictures remotely, erase images from memory, transfer them to the computer and switch the camera's resolution. There's also a set of automatic image-enhancement features. In addition, the software includes templates for documents such as greeting cards and calendars, as well as some special effects that may be fun at first but will probably pall with use. MetaTools Inc.'s Kai's Power Goo rounds out the package (see below).

Image quality is surprisingly good, and the color is plausible if not accurate. The camera does a good job capturing people, which is probably where it will get the most use if it reaches its target consumer market.

Overall, the DC-20 is a great little package: simple enough for novices but powerful, too. The only major limitation is the small amount of storage, but given the price this is perhaps inevitable.

Eastman Kodak Co. of Rochester, N.Y., is at (716) 726-7260 or (800) 235-6325; http://www.kodak.com. — *By Bruce Fraser*

Power Goo turns into a liquid asset for MetaTools

Kai's Power Goo 1.0 ◆◆◆◆

Kai's Power Goo is a liquid deformation and animation package that MetaTools Inc. describes as "funware." And fun it most definitely is. However, this unique program is better described as a savagely powerful graphic designer's tool wrapped in a hallucinogenic candy coating.

For an application seemingly aimed at mischievous children, the $49.95 (estimated street price) Power Goo provides some startling professional features. Mac artists will eagerly snatch the keyboard away from their kids when they witness the real-time rendering speed, near-telepathic interface and high-quality deformations. Goo also features what could safely be called the easiest and fastest 2-D keyframe animation module of any Mac package yet devised.

Goo and plenty

The Goo interface is even more remarkable than that of fellow MetaTools products Kai's Power Tools and Bryce because it provides even fewer informational clues to functions. Just listen to your intuition and click on something.

For instance, the brush or effects tools appear when you click one of the two rainbow icons to the left of the image (you toggle off with another click). Each tool name is embedded on large 3-D colored orbs set in a half-circle around the bottom of the image workspace. All the brushes and effects work in real time. And these aren't proxies — this is the finished image. Don't like what you've done? Simply slide down the Gearshifter at the bottom left of the screen, and it gradually undoes the effect.

But the animation portion of Goo is where the real power is. When you move the mouse below the Image window, a film strip appears. Clicking on the first open frame creates a reference keyframe. Once you've edited your image, click the next filmstrip keyframe. After you've filled the frames with variations of the original image, clicking the Movie Camera icon displays a full-resolution animation, smoothly flowing between the keyframes you selected. Like the distortion tools, the animations happen in real time. We've seen no other program on the Mac that works with this kind of speed and resolution. Rendering out to a QuickTime movie worked almost as quickly, taking about seven seconds to render a three-second animation on an 8500/120 Mac. You can also save movies in a proprietary GooVie file format; these cannot be played outside the program, however.

We even tried to slow rendering time by running Goo on a Performa 5215 with only 8 Mbytes of RAM and with virtual memory on, but Goo held up.

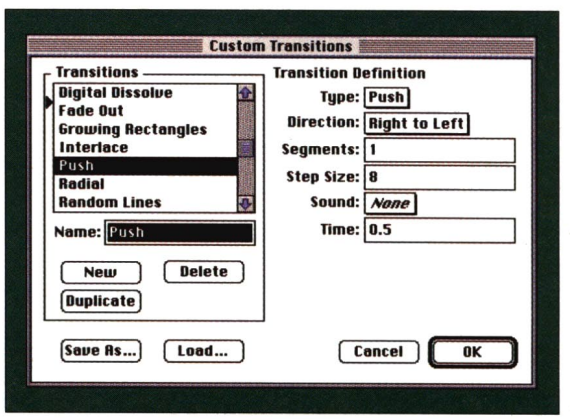
While Goo's image library includes mostly head shots, the liquid deformation tools work on any PICT file or QuickTime frame grab.

One annoying aspect is that the program won't run without the CD — a smart copy-protection tactic for MetaTools, but a hassle for users. Print resolution also works against Goo: To get beyond screen resolution, you must check the Hi-Res button on the Options screen. This provides a menu that lets you size the image up to 1,720 by 1,720 pixels. Scaling the image down in Adobe Photoshop provides higher resolution, but is a workaround.

Conclusions

Admittedly, Goo is a one-trick pony. Although we never tired of it, we suspect some artists may find a limited use for its many variations on the liquid deformation theme (after all, how many objects can you smear and stretch?). Still, its real-time rendering speed and intuitive interface, coupled with its bargain price, make Goo a great value, even if you use it only a few times.

MetaTools Inc. of Carpinteria, Calif., can be reached at (805) 566-6200 or (800) 472-9025; fax (805) 566-6385; kptsupport@metatools.com; http://www.metatools.com. — *By Kennedy Grey*



The Custom Transitions dialog box lets you create a variety of transition effects. There are many "canned" transitions, but you can edit them and save the variants.

Immedia

From Page 25

Pixel Editor, which lets you create animations, buttons and cursors, is functional but fairly primitive — it's similar in look and feel to ResEdit's Icon editor. Standard paint program tools are included, and you can copy one animation frame to the next, but there are no tweening or onion-skinning capabilities. Fortunately, you can import creations from other applications.

Applications can be tested through a Debugger window that displays a record of every command executed. Finally, you export presentations as either stand-alone applications with an embedded Immedia viewer or as Viewer documents.

The free Immedia Viewer also acts as a Web browser. It can view Immedia pages and hand off the HTML pages to Netscape Navigator. Conversely, Navigator can use Immedia as a "helper" application. We did not test these Internet capabilities, however.

Performance

XPress and Immedia together require at least 4 Mbytes of RAM, but large animations or QuickTime movies can require more. We tested Immedia on a Power Mac 9500 with 80 Mbytes of RAM and System 7.5.2 with 20 Mbytes of RAM allocated to the application.

Our beta version was not completely stable, and some features — such as exporting a project to a stand-alone application — produced inconsistent results. However, we received three beta versions during our testing period and each grew in stability.

The beta documentation is quite thorough and included a helpful supplemental guide to authoring.

Conclusions

If it lives up to its promise, QuarkImmedia could be a winner. It makes multimedia development much more accessible to designers who have typically avoided programming-intensive applications. The downside to Immedia's simple scripting environment is that it may limit the complexity of a project — a drawback shared by Pitango's new authoring tool, ClickWorks (see 07.15.96, Page 25). But current XPress designers interested in creating straightforward multimedia will find Immedia powerful and easy to use. If you already own XPress or have a need for it, Immedia is well worth the price — particularly if you can take advantage of the reduced price.

Quark Inc. of Denver can be reached at (303) 894-8888 or (800) 676-4575; fax (303) 894-3399; http://www.quark.com. □

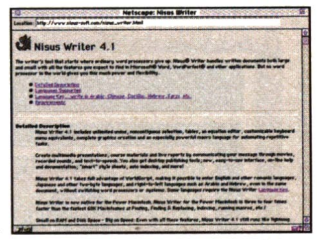
Key ◆◆◆◆◆ *Excellent* ◆◆◆◆ *Very good* ◆◆◆ *Good* ◆◆ *Fair* ◆ *Unsatisfactory*

MacWEEK ◆◆◆◆

1. Compatibility Never again will you be stuck using WordPerfect or Word 6.0. Nisus Writer lets you read and write to all popular formats. **2. Noncontiguous & Rectangular Selection** Select any number of text blocks at once, no matter where they are in a document. What other word processor can do that? **3. Virtually Unlimited Undos** Nisus Writer lets you undo over 32,000 mistakes, just the thing when you're having a bad day. **4. Foreign Languages** With the appropriate Apple Language Kits and the Nisus Language Key for some languages, Nisus Writer lets you write in over 19 languages in a single document, including Cyrillic, Japanese, Chinese, Arabic and Hebrew (foreign language classes not included). **5. Multimedia** **"Hey, you!"** Attach your voice or any sound to words or sentences, and jazz up your documents with a QuickTime movie or two. **6. Web Page Creation** Nisus Writer's built-in HTML macros do most of the work for you, so you're practically done with your own Web page already. **7. Auto-Numbering** Watch as Nisus Writer automatically numbers and renumbers tables, figures, equations, chapters, sections and more. **8. Use Less Memory And Disk Space** Cut the fat. Nisus Writer takes only 7 MB of disk space fully loaded and needs only 3 MB of RAM to run. No foolin'.

MACUSER EDITORS' CHOICE AWARD 1995 FINALIST

MacUser RATED ♦♦♦♦ April 1995



9. Desktop Publishing & Layout Tools Put text in columns, wrap it around graphics and more, just like with those expensive programs. Or just write, and export to QuarkXpress or PageMaker without losing any formatting. **10. Macros** You can make Nisus Writer do just about anything you want it to (except your laundry) with a simple keystroke or mouse click. Nisus Writer's simple macro recorder and built-in programming language make it easy. **11. Keyboard Shortcuts** Create custom shortcuts to activate any Nisus Writer feature. You may never pull down menus again. **12. Styles** Create customized styles for characters and paragraphs. **13. Graphics Tools** This ain't no toy. Nisus Writer gives you a full suite of color drawing tools, and lets you import graphics too. **14. Dynamic Cross-Referencing** Nisus Writer automatically updates all references to page and line numbers, text content and figures as your document changes. **15. Text-To-Speech** Nisus Writer's suave voice will read your text back to you in up to five different languages. Other word processors come up speechless. **16. Glossary** Make a glossary of often-used text or graphics and place them in documents with just a few keystrokes. **17. Powerfind** Find anything, anywhere, even in unopened documents. If there's a needle in that haystack, Nisus Writer will find it. **18. Multiple Clipboards** Copy and paste to your heart's content with Nisus Writer's **TEN** editable Clipboards. **19. Bookmarks** Forgot where you left off? Never again. Just mark any location in your document and jump to it with one mouse click. **20. Indexing Tools** Easily index your documents using word lists, Find/ Replace, or defined styles. **21. Auto-Save & Backup** What, you didn't backup? Big deal. Nisus Writer already did it for you.

21 REASONS WHY NISUS WRITER IS A STEAL AT JUST $99

All this and much more, for just 99 bucks (SRP). So order the Nisus® Writer 4.1 CD-ROM* (with online documentation) at MacWAREHOUSE or MacZone today. Hurry, quantities are limited!

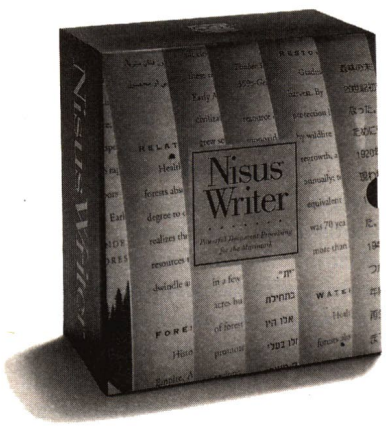
*Nisus Writer on diskettes with printed documentation is $149 SRP.

BMUG SPRING 1995 CHOICE PRODUCT

INGRAM MICRO

MacWAREHOUSE 1-800-255-6227

The MacZone Your Catalog SuperStore 800-436-0606 Source code #2693



For more reasons to buy Nisus Writer 4.1, call 800-493-0998 or visit our Web page at www.nisus-soft.com

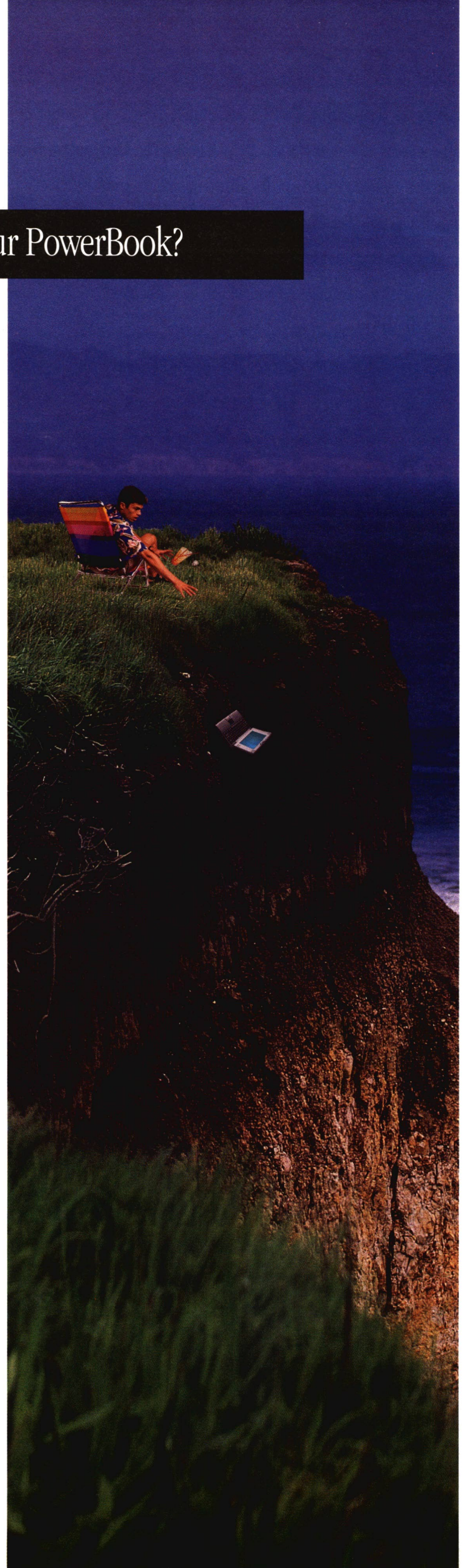
Accelerated for Power Macintosh

107 S. Cedros Ave. • Solana Beach, CA 92075 • (619) 481-1477 • FAX (619) 481-6154

Nisus and Nisus Writer are registered trademarks of Nisus Software Inc. All other product names are the trademarks or registered trademarks of their respective holders.

NISUS Software Inc.

What *was* on your PowerBook?



Amazing where you'll find PowerBooks these days. On the road. In the air. At the beach. Everywhere.

Only thing is, they're traveling around with important files that don't exist anywhere else. And every disaster that can happen to a Mac in the office is multiplied when you take a PowerBook into the world. Like cocktails in the keyboard. Or when it gets hijacked at the airport. Voltage spikes. Gorilla bellhops. The unfortunate farewell when you leave it behind in a cab.

With Retrospect Remote® 3.0, PowerBooks get the protection they need. It backs up PowerBooks automatically when they connect to the network. So even when your PowerBook's not connected, you still have peace of mind.

Retrospect Remote also backs up each Mac on your network in priority order. And now, with the new Remote Pack for Windows 95 & NT, it takes care of PC notebooks and laptops. Even PCs that stay put.

We wrote the book on PowerBook backup. Call us at 800-982-9983 and we'll send it to you. Because sometimes using a PowerBook isn't a day at the beach. But with Retrospect, you'll always bounce back.

score card
MacWEEK

MacUser
RATED

It's unanimous. MacWeek says Retrospect is "the best of the breed." MacWorld writes "Retrospect leaves the competition in the dust." And MacUser reports "no other backup utility can match its breadth or depth."

If you're not on a network, we still have you covered with our single user version, Retrospect® 3.0.

dantz®

To go forward, you must back up.®

©1996 Retrospect Remote and Retrospect are registered trademarks of Dantz Development Corporation. All other trademarks are property of their respective holders. Dantz Development Corporation. 4 Orinda Way, Building C, Orinda, CA 94563. Phone: 510.253.3000. Fax: 510.253.9099. Internet: info@dantz.com, upgrades@dantz.com, www.dantz.com.

PARTY LINE

Intranets are most often used to retrieve personnel documents and link to corporate databases.

— Zona Research Corp.

WORLD WIDE WEB

Webmasters shift to CGIs for better searching tools

By April Streeter

Where a Web server is found, whether it's Internet- or intranet-based, connectivity to corporate data sources can easily follow. The focus of many network managers and Webmasters has now shifted from grasping the basics of HTML to using CGI applications to add bells and whistles to the users' Web experience.

"We've moved beyond the first generation in which we were all saying, 'Wow! Thank God for Chuck Shotton and HTTP,'" said Ed Berard, an Internet consultant and Web developer at The Object Agency Inc. in Gaithersburg, Md. "Then along came the flood of CGIs and plug-ins, and we are asking ourselves how do [these] products fit with development of our Web applications?"

In creating a Web site that offers database searching, CGIs, or Common Gateway Interfaces, are the helper applications that link the Web server software and the back-end database — which may or may not reside on the same server. CGIs carry user requests to the database, which then returns results as HTML pages that can be read by the browser. While CGIs add much functionality, they can affect server performance and stability and change the requirements for Web-site management.

At least a half-dozen CGIs for database connectivity exist, some shareware but many commercial products, and many managers have opted to construct their own CGIs using AppleScript; UserLand Frontier; or C/C++ or PERL languages. At this writing, the commercial CGI choices are Web FM from Web Broadcasting Co. of Palo Alto, Calif., for FileMaker Pro databases from Claris Corp.; NetLink/4D from Foresight Technology Inc. of Forth Worth, Texas, for 4th Dimension databases from ACI US Inc.; and Tango, a development tool from EveryWare Development Corp. of Mississauga, Ontario. Originally developed for EveryWare's Butler and other Open Database Connectivity-compliant databases, Tango was recently released in a version for FileMaker Pro.

FileMaker Pro's popularity on the Mac platform has led to a variety of CGIs for WebStar-FileMaker connectivity, most written in AppleScript. While many users have complained about AppleScript's sluggishness in CGIs, Kevin Penn was an exception. Penn, a medical affairs information technology analyst for Genentech Inc. in South San Francisco, Calif., said he has found the Web FM-FileMaker Pro combination unbeatable.

"The current crop of [database] CGIs probably doesn't have a long shelf life."

— Ed Berard, The Object Agency Inc.

Helping the help desk

Penn created a help-desk-request intranet system for the Genentech user community, and he planned from the start to offer connectivity to the FileMaker Pro database archives.

"We originally looked at ROFM, a shareware application," Penn said, "but pretty quickly decided to go to Web FM. It's an impressive and powerful application."

Penn said he has had no performance problems to speak of, and he praised Web Broadcasting for planning to implement many of his suggested improvements in future releases of Web FM.

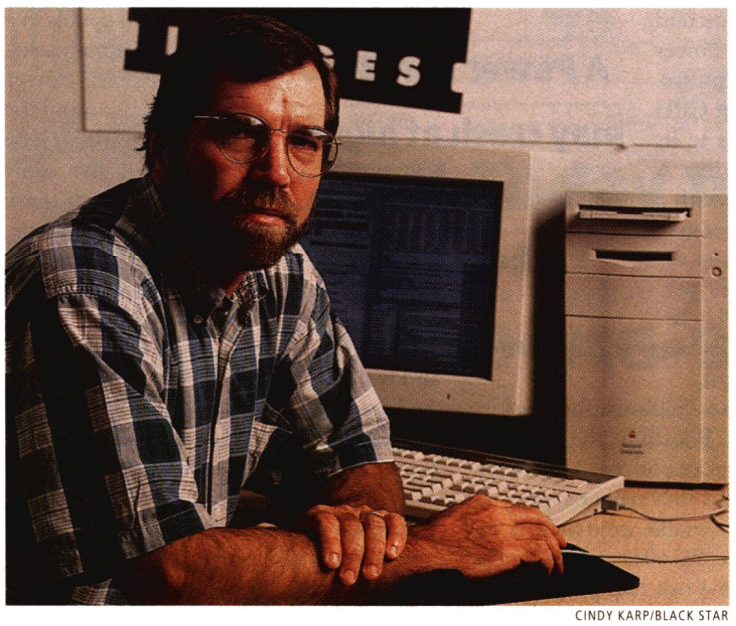
The Object Agency's Berard, who has surveyed and used most of the database connectivity CGIs, has a slightly different take on Web FM.

"I'm a longtime FileMaker Pro user, I've tried Web FM and I was eventually driven into the NetLink/4D-ACI US camp," Berard said. "Web FM is poorly documented, and there's inadequate control over the FileMaker database."

Berard said good documentation and explanations of how to get started with database CGIs are lacking in most of the available products. "I'm quickly enthusiastic about them, but it's always a research project," he said. He said he's happier with the functionality of 4th Dimension and NetLink/4D for recent projects he has undertaken, such as creating an intranet site for the World Bank's Learning and Leadership Center in Washington, D.C.

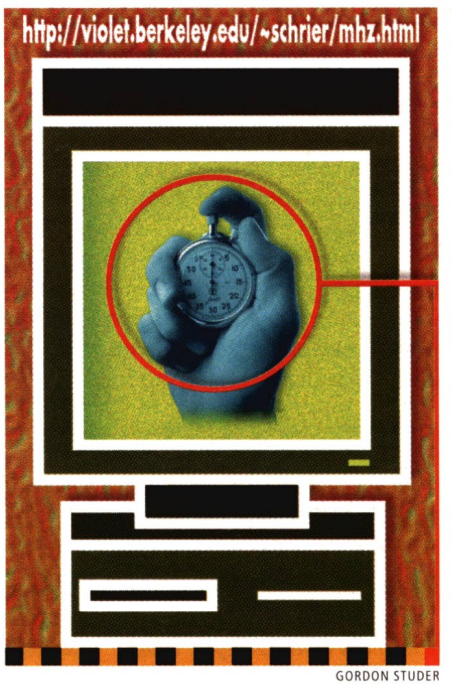
"For the World Bank I had to pick up 4D in a very short period of time, and I've been pleasantly surprised with both NetLink/4D and 4D in general," Berard said. "The NetLink/4D and 4D combination is much stronger in terms of control than FileMaker Pro-Web FM. Yes, there's a trade-off, though. You are working at a lower level — you can't always ignore HTTP — and you are much closer to the workings of the hardware," he said. "NetLink/4D is also not for the faint-hearted, but if you are willing to get in there and write your own code, you'll have that much more control."

See Solutions, next page



CINDY KARP/BLACK STAR

According to Fred Wunderlich, a Web designer and technical director at Power Images, managing Web sites via a database is like putting them on autopilot. Wunderlich has designed Web pages for the Miami Dolphins and Blockbuster Video using WebStar, Tango and Butler.



GORDON STUDER

MACINTOUCH

RIC FORD

Faster CPU cards arrive for PCI processor slots

Third-party processor upgrade cards are finally starting to appear for PCI Power Macintoshes a year after these computers came to market. Actually, the first upgrade cards are not really new products but Apple cards modified with higher clock rates by PowerTools Technologies. Upgrade options should be more plentiful by the end of the year: New cards, based on original designs, are scheduled to reach the market in the next few months from XLR8 Inc., PowerTools and other companies. Ironically, this is happening just as a completely new, PowerPC Platform generation enters its final stages of development.

Apple and clone manufacturers, which have all the engineering and manufacturing resources to produce these cards, have not shown much interest in selling them as separate products. Consumer "clock-chipping," however, has blossomed on Power Macs. This process of speeding up Macs by replacing standard oscillators with faster versions is well documented on Marc Schrier's Clock Chipping Home Page at http://violet.berkeley.edu/~schrier/mhz.html.

There is clearly a substantial safety margin in Power Mac CPUs and hardware to support faster speeds, although individual

See MacInTouch, next page

SOLUTIONS

From previous page

Byron Palmer, a physicist and technical staff member in computer security and support at the Los Alamos (N.M.) National Laboratory, is a veteran of using a couple of CGI-database combinations, and he now uses EveryWare's Butler database and Tango. Palmer runs two Web servers on the Mac platform — one warehouses data on hazardous wastes and treatments, and another is an intranet server that catalogs computer security problems and their solutions.

"The sites are database-driven. Wading through hundreds of pages and collating information does not appear to me to be a useful way of presenting data," Palmer said, discussing his efforts to find ways of linking databases to his servers. "We started with FileMaker Pro as a database engine using AppleScript [CGIs] to communicate [but] the time to do the queries and prepare the data was excessive.

"At that point we tried 4D. Performance improved, but it still took too long. Finally we tried using ISIS [International Inc.'s] System 7 Pack to give 4D scripting capabilities, but we had to run four instances of 4D to make it work, and this caused a lot of crashes."

In searching for other solutions, Palmer discovered and downloaded a demonstration of Butler, and he put together a solution, still using his own AppleScript CGIs. "This was nicer, had more capabilities and was a lot of fun. Then EveryWare came out with Tango and off I went."

Tango consists of two parts: a CGI application written in C++, which generally makes it faster than AppleScript CGIs, and a graphical editor for constructing queries to talk to the Butler back end. Palmer said that while Tango is easy to use, it does have a gentle learning curve.

"Most of my effort had not been spent in the Tango editor but in thinking about what I want to show and the best way to accomplish the task," Palmer said.

The difficulty is intensified as a database gains complexity, especially for Webmasters unfamiliar with database administration and SQL, Palmer said. "If you have a simple data set you are putting up, [Tango] is very fast to figure out. The problems come when you have 30 tables, and all interconnected," he said. "Still, Tango is as simple as any tool I have found to get complicated database queries put together, and it has simplified my work tremendously."

Enter indexing

Managers in charge of Web servers are confronting a new set of issues created out of the transition from WYSIWYG Web sites where all the data resides at the site and changes only when the Webmaster changes it to sites where new pages are constantly generated by user-driven database searches.

Fred Wunderlich, a Web designer and technical director at Power Images in Fort Lauderdale, Fla., has designed Web pages for the Miami Dolphins football team and for Blockbuster Video using the WebStar-Tango-Butler combination. Wunderlich said tools such as Tango make it easier to prompt the database to do the tedious updating of the Web site.

"We've found we are able to manage sites via a database," Wunderlich said. "The links and content can be added, moved and changed via database queries with little or no actual HTML coding — it practically maintains itself. I call it 'putting the site on autopilot.' " He said he is focusing his learning attention these days on UserLand Frontier, which he considers superior to AppleScript not only in terms of speed but also in its capability to script site-management tasks.

One Web database issue that has not yet been solved is indexing, according to The Object Agency's Berard. "With Web pages in a database, you are no longer dealing with distinct HTML pages," he said. "The pages are being assembled on the fly, so how do you index a site like that? You need a pretty sophisticated tool."

With Web sites and products evolving so rapidly, Berard said he probably doesn't have long to wait for such a tool. In fact, he said he believes the entire category of CGI-database connectivity tools will quickly evolve as database vendors make Web-server technology part of the database itself — as ACI is already doing with 4th Dimension databases. "The current crop of CGIs probably doesn't have a long shelf life," Berard said. □

Get your shin guards here

Although it isn't yet clear whether the Web will turn into the world's largest shopping mall, some users are already cashing in with a combination of a Web server, back-end database and connectivity CGIs.

Brooks Holman, a software engineer at Palos Software Inc. of San Diego, uses WebCatalog and WebMerchant. These CGIs developed by Pacific Coast Software Inc. of San Diego serve classified-ad pages and product catalogs for Palos' parent company, Trader Publications.

Holman chose WebCatalog because it works with Quarterdeck Corp.'s WebStar server software, and she can use it regardless of which back-end database stores the merchandise information. For example, she said her company uses an Informix database from Informix Software Inc. on its Auto Trader project and a Claris FileMaker Pro database on its Action Soccer project. With WebCatalog, all it takes is construction of a one-line SQL command to serve the data, she said. "It's very easy."

For Auto Trader magazine, WebCatalog helps serve up classified ads containing the makes and models of cars for sale. To maintain good performance, Holman extracts a subset of the giant Informix database, which contains Auto Trader's archives, and converts it to an ASCII text file for WebCatalog to access.

Auto Trader's ads don't result in on-the-spot sales, but Action Soccer's product database does. An offshoot of Trader's soccer publications, Action Soccer functions as an online store. WebCatalog links a FileMaker Pro catalog of descriptions of merchandise to interested browsing customers. WebMerchant, a separate CGI, provides a shopping-cart metaphor to keep track of how many soccer balls, shin guards and molded cleats a user wants to buy. WebMerchant also provides a dollar total, generates invoices and collects purchase-option data.

Holman said WebCatalog has made it easy for Auto Trader to extend its sales through the Web server and existing databases. "Here's a system that uses whichever databases you have, is available for a good price and gives users really fast access." — By April Streeter

MACINTOUCH

From previous page

processors and logic boards vary in their speed capacity. Third-party vendors, such as PowerLogix, are supplying increasingly sophisticated oscillators and accelerators for Power Macs. (Newer Technology Inc. covers PowerBooks, too.)

Twenty percent boosts are ordinary, and hard-core hackers go much further for fun, using extra cooling and other tricks to keep the machines from crashing. Fortunately, most software problems with acceleration have been flushed out over the years by a long parade of accelerators and Mac platform changes.

Caching the bus

One important issue for accelerated systems today is cache design. A Power Mac 8500/120 may crash at 138 MHz with its standard Apple cache, yet run fine at 155 MHz with a different cache card or without any Level 2 cache at all. Since cache is critical for high performance, some accelerator vendors have begun supplying cache specified for use with hot-rodded Macs. XLR8 and PowerLogix sell these products in various sizes and configurations, while PowerTools recommends an Apple 256-Kbyte card, part number 820-0719-B.

Bus speed is a second critical issue. A Power Mac 7500/100 is a fast system for its modest CPU clock rate, thanks to its 50-MHz memory bus. A 120-MHz system with a typical 40-MHz bus may not be as fast as you expect, despite its 20 percent speedier CPU, because the CPU waits longer to get data from the bus (cache helps).

A Power Mac 8500 may crash at higher speeds without a cache upgrade.

The Power Mac 7500's fast bus has its limits, however. Boosting the original PowerPC 601 processor to 130 MHz would push the bus into risky territory at 65 MHz. A more viable approach is an upgrade to a PowerPC 604 card clocked at 150 MHz with a 3-1 bus ratio of 50 MHz.

Processor cards seem to be swappable among PCI Power Macs. (Try resetting parameter RAM if a swap causes problems initially.) Some clone cards and Apple cards are interchangeable, depending on the model.

Apple lists processor card part numbers and technical details in a Tech Info Library article titled "PCI Power Macintosh Computers: Proc. Upgrade Card Matrix," but the company does not sell these cards as retail products. Current pricing for third-party processor cards starts at about $600 with a trade-in of an existing card, and well over $1,000 for high-speed cards. As PowerPC 604e processors begin shipping in volume in the next few months, prices of these PowerPC 604 cards may drop considerably.

Add-on accelerators are far less expensive, starting at less than $150. PowerTools also sells complete systems with accelerated cards pre-installed. When buying certain models, such as the Power Mac 8500/132 or 9500/150, from other dealers it may be worth checking to ensure that the processor card is an Apple product rated for that speed and not a swapped, 120-MHz card boosted by the dealer.

PowerTools Technologies of Austin, Texas, can be reached at (800) 891-4307 or (512) 891-0646; fax (512) 476-6399; http://www.pwrtools.com/.

XLR8 Inc. of Austin can be reached at (512) 346-2557; fax: (512) 346-2800; http://www.xlr8.com/.

Newer Technology Inc. of Wichita, Kan., can be reached at (800) 678-3726 or (316) 943-0222; fax (316) 943-0555; http://www.newertech.com/.

PowerLogix of Austin can be reached at (512) 244-7394; fax (512) 244-7409; http://www.powerlogix.com/. □

Comments on MacInTouch are welcome at (508) 897-2621. Please address e-mail to ricford@macintouch.com on the Internet or 72511,44 on CompuServe. The MacInTouch home page is at http://www.macintouch.com/.

The Mac Zone® Established 1986

your Macintosh® catalog SuperStore™

HEWLETT PACKARD Authorized Reseller

Authorized Catalog Reseller®

IBM Business Partner — Authorized Personal Computer Dealer

Serving Mac users since 1986

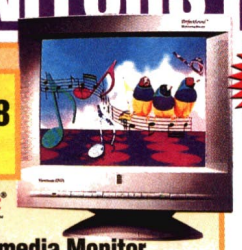
Full Line of Apple® Macintosh® Computers

Overnight Delivery via AIRBORNE

Over 6000 Products!

ORDER ANYTIME 24 HOURS A DAY 7 DAYS A WEEK

MONITORS



ONLY $784.98 #88429

ViewSonic® *See The Difference!™*

17GA Multimedia Monitor
- 17" color display (16" viewable)
- Max. resolution: 1152x870 at 75Hz

Sony

06676	Multiscan 15sf II (13.9" viewable)	$489.00
06677	Multiscan 17sf II (16" viewable)	$815.00
06678	Multiscan 20sf II (19.1" viewable)	$1,789.00

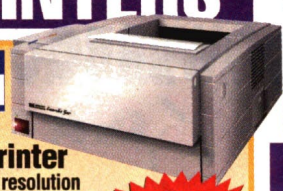
Radius

90903	PrecisionView 17SR (15.9" viewable)	$1,799.00
89457	PrecisionView 21SR (19.7" viewable)	$3,299.00

NEC

27645	XV15+ 15" Color Mtr (13.8" viewable)	$469.00
27646	XV17+ 17" Color Mtr (15.6" viewable)	$799.00
19722	XP 21 21" Color Mtr (19.8" viewable)	$1,999.00
19719	XE21 21" Color Mtr (19.8" viewable)	$1,699.00
19721	XP17 17" Color Mtr (15.6" viewable)	$1,049.00
86328	MultiSync C500 15" Color Mtr (13.8" viewable)	$389.00
86792	MultiSync M500 15" Color Mtr (13.8" viewable)	$529.00

PRINTERS



HEWLETT PACKARD Authorized Reseller

LaserJet 5MP Printer
- 600 dpi resolution

ONLY $899.00 #86349

Factory Reconditioned with 1 YEAR WARRANTY!

Epson

20670	Stylus Color II Ink Jet*	$269.00
89901	Stylus Color Pro Ink Jet	$449.00
87980	Stylus Pro XL Ink Jet	$1,799.00

* Price after $30 Mail-in Rebate

Hewlett-Packard

88902	DeskWriter 600	$199.00
94057	DeskWriter 660C InkJet	$279.00
86321	DeskWriter 855cse	$499.00
86809	DeskWriter 340CM	$339.00
23786	LaserJet 5MP	$1,044.00
86349	LaserJet 5MP - Reconditioned	$899.00

Okidata

93689	OL410e/PS	$499.00
26952	OL610e/PS	$749.00
86759	OL810e/PS	$1,198.00
86757	OL1200/PS	$1,485.00

SCANNERS

ES-1200C-Pro Scanner
- 30-bit scanning at 600x1200 dpi
- Photoshop 3.0, KPT & Scantastic included

ONLY $1178 #02110

Epson

91939	ES-1000C	$735.00
02133	ES-1200C	$949.00
02110	ES-1200C Pro	$1,179.00

Hewlett-Packard

87989	ScanJet 4C	$959.00
06671	ScanJet 4S	$298.00

Umax

86269	Vista S-6E	$398.00
01193	Vista S6 Pro 2	$598.00
01189	Powerlook Pro 2 w/TMA	$1,899.00
88594	Powerlook II	$2,495.00

Visioneer

88164	PaperPort Vx for Macintosh	$295.00

ACCESSORIES

SUPER VALUE!

MacWEEK

ArtZ II 12x12 Graphics Tablet w/Erasing UltraPen Factory Reconditioned

ONLY $348.98 #85588

WACOM

APC

94396	APC Personal Surge Arrest	$18.98
94395	APC Personal Surge Arrest w/Phone	$24.98
07150	Back-UPS 280	$99.98
99364	Back-UPS 400	$148.98
11651	Back-UPS 600	$249.98

Adesso

91099	Tru-form Extended Keyboard w/Pointer	$89.98
91854	Soft Touch Extended Keyboard	$49.98

Alps

92698	Alps GlidePoint for Mac	$45.98

Calcomp

91862	Drawing Slate II 12x12 w/Pressure Pen	$224.00
91864	Drawing Slate II 6x9 w/Pressure Pen	$194.00

Kensington

93628	Thinking Mouse ADB	$79.98
87483	Turbo Mouse 5.0	$108.98

Performantz

90677	Soft Touch Extended Keyboard	$49.98
89844	Mouse ADB	$19.98
85842	Trackball ADB	$39.98

Wacom

90643	ArtPad II (ADB) w/Erasing UltraPen	$134.00
90644	ArtPad II (ADB) w/ Dabbler Bundle	$149.00
90646	Artz II 12x12 (Serial) w/Erasing UltraPen	$399.00
90645	Artz II 6x8 (ADB) w/Erasing UltraPen	$295.00
85588	Artz II 12x12 Tablet - Reconditioned	$348.00

BOARDS

Imagine 128 4MB Graphics Accelerator Card

ONLY $689 #87256

ATI

90135	Exclaim GA 2MB PCI	$279.00
90136	Exclaim GA 4MB PCI	$429.00

Daystar

92169	Turbo 601 66MHz for IIci	$479.00
91164	Turbo 601 100Mhz for IIci	$1,139.00
92171	100MHz PowerPro	$1,199.00

NEWER TECHNOLOGY

87029	NUpower 117MHz 0K /PB500 Series	$615.00
87030	NUpower 117MHz 4MB /PB500 Series	$799.00
87012	16sce UltraDock	$485.00

Number Nine

86121	Imagine 128 4MB	$689.00
87257	Imagine 128 8MB	$999.00

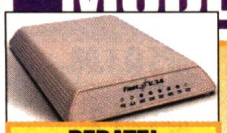
Radius

90909	Precision Color 8/1600 PCI	$349.00
90907	Thunder 30/1600 PCI	$999.00
92637	Thunder IV GX 1152	$829.00
90906	ThunderColor 30/1152 PCI	$1,549.00
93683	VideoVision Studio 2.5.1	$2,399.00

TrueVision

06682	Targa 1000	$2,699.00
91938	Targa 2000 Nubus	$2,498.00
87956	Targa 2000 PCI	$4,599.00

MODEMS



REBATE!
Regular Zone Price $129.98
Mfr. Mail-In Rebate – $30.98
Your Price After Rebate $99.98
#84031

Boca FastMac 28.8 V.34 FaxModem
- FREE NETCOMplete Internet Kit with Netscape Navigator 2.0!

Global Village

93748	TelePort Gold II	$59.00
01155	Teleport Platinum V.34 for Desktop Macs	$199.00

94388	PowerPort/Mercury for PowerBook 5XX	$338.00
01167	PowerPort/Platinum for PowerBook 1XX	$338.00
89313	PowerPort Platinum V.34 PC Card	$338.00
89312	PowerPort Platinum Pro V.34/10-T PC Card	$499.00

Megahertz

85474	CruiseCard XJack 288 w/FREE Notepac Case	$269.00

Motorola

90622	Power V.34 Data/Fax Modems	$268.00
90621	LifeStyle V.34 Data/Fax Modem	$199.00

Boca

90624	FastMac 28.8 V.34 FaxModem	$129.00

Practical Peripherals

90600	MacClass MC288T2-EZ PCMCIA	$299.00
92951	MacClass MC288MT II v.34	$169.35

Supra

85619	Supra Express 144 Plus	$49.00
06865	Supra FAXModem 144PB Int - PowerBook	$129.00
90212	Supra FAXModem 288 V.34 Int for PB	$189.00
89309	Supra Express 288 V.34 FaxModem	$149.00
94353	Supra FAXModem V.34 288	$195.00

Prometheus

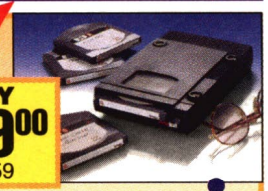
90234	CyberPort 14.4	.49.00
90235	CyberPort 28.8	$99.00

US Robotics

93701	Mac & Fax Sportster 14.4	$79.00
92953	Mac & Fax Sportster 28.8/33.6 V.34	$195.00
87406	Sportster Voice 28.8/33.6 V.34	$219.00

STORAGE

NEW LOW PRICE!



ONLY $499.00 #25659

Jaz 1GB External Drive
- 5.53MB/second transfer rate and 17ms access time
- Includes one 1GB cartridge

iomega

Performantz

88573	Quad Speed External CD Drive	$149.98
06688	8x External CD Drive	$298.98
88988	Performantz 1GB External HD	$329.98
88989	Performantz 2.1GB External HD	$679.98
88991	Performantz 8.0GB DAT Drv w/Retrospect	$1,179.00

Dynatek

86262	HDA 1GB	$345.00
86263	HDA 2.2GB	$689.00
86264	HDA 4.35GB	$1,179.00
86256	4GB 4mm DDS DAT	$1,099.00
86257	8GB 4mm DDS DAT	$1,179.00
86258	Dynatek 2X CD Recordable Drive	$1,129.00
86259	Dynatek 4X CD Recordable Drive	$1,599.00

FWB

06271	CD-ROM Toolkit	$47.00
00555	Hard Disk Toolkit	$115.00

NuBus

94121	SCSI JackHammer	$449.00
90350	Hammer CD2X Recordable	$1,389.00
86954	Hammer CD4X Recordable	$1,999.00

LaCie

86312	LaCie 1280MB External HD	$359.00
86295	LaCie 2160MB External HD	$649.00
89876	LaCie 4300MB External HD	$1,299.00

Microtech International

89609	Polaris 500MB Ext	$279.00
89611	Polaris 1.0GB Ext	$389.00
89612	BlueStorm LC 2GB	$999.00
89636	BlueStorm LC 4GB	$1,399.00
86191	RoadRunner 320MB PowerBook Drive	$349.00
89619	RoadRunner 500MB PowerBook Drive	$499.00

MEDIA

ONLY $19.98 #91159

Zip 100MB Media
- High reliability – super low price!

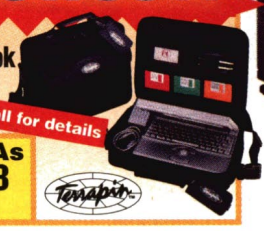
Iomega

91159	Zip 100MB Media	$19.98
91160	Zip 100MB 3-Pack	$49.00
91161	Zip 100MB 10-Pack	$149.00

SyQuest

24998	EZ135 Media	$19.00
02183	44MB Cartridge	$39.00
00183	88MB Cartridge	$43.00
99922	105MB Cartridge	$34.00
97992	270MB Cartridge	$51.00
00278	200MB Cartridge	$63.00

MOBILE BLOWOUT!



PowerBook Carry Cases

Call for details

As Low As $24.98

Terrapin

Adesso

95637	PowerBook 140-180 Battery/Conditioner	$59.98

Targus

06023	Notepac (4 color choices)	$35.98
06610	Leather Notebook Case	$98.98
07454	Universal Notebook Case	$68.98

Terrapin

90782	TGL300 Deluxe Leather - Black	$99.98
90783	TGL400 Leather - Black	$84.98
90784	HS300 Hardshell Workstation - Black	$49.98
90786	SS300 Softshell Workstation - Black	$29.98

SOFTWARE

ONLY $79.98 #89308

Insignia Solutions SoftWindows 3.0 for Power Mac Upgrade
- Now 35% faster performance!
- Run any Windows or DOS program

Adobe Systems

88205	Illustrator V5.0 to V6.0 Upgrade CD	$95.00
91255	PageMaker 6.0 Upgrade	$135.00
88414	PageMill 1.0	$98.00
87636	SiteMill	$398.00
95341	Photoshop 3.0.5 Upgrade	$157.00

Connectix

96785	RAM Doubler v1.52	$53.00
90375	Speed Doubler	$53.00
90149	RAM/Speed Doubler Bndl	$75.00

Claris

92342	Apple IP Gateway	$198.00
90198	Em@iler	$44.00
96678	Apple Remote Access - Upgrade	$59.00
88829	FileMaker Pro 3.0 Upgrade	$98.00
88830	FileMaker Pro 3.0	$198.00

Insignia

89308	SoftWindows 3.0/Power Mac upgrade CD	$79.00
98475	SoftWindows 3.0 CD	$299.00
87442	SoftWindows 95/Power Mac Upgrade CD	$149.00
87440	SoftWindows 95/Power Mac	$349.00

Macromedia

86007	Director Multimedia Studio 2.0 Upgrade	$498.00
87150	FreeHand 5.0 to 5.5 Upgrade CD	$78.00
95291	Macromedia Director 5.0 Upgrade CD	$388.00

Microsoft

06184	Project V4.0 Upgrade	$134.00
88986	Visual FoxPro Upgrade	$284.00
05750	Works 4.0	$48.00
99696	FoxPro V2.6 Full Version	$88.00
96024	Office V4.2.1 Upgrade CD	$278.00

Quark

95320	QuarkXPress V3.32 for Mac/Power Mac	$657.00

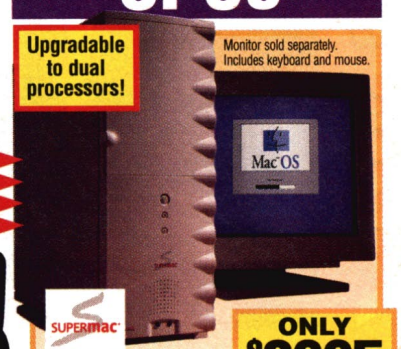
Symantec

06231	ACT! V2.5	$164.00
93976	Norton Utilities V3.2 Upgrade	$38.00
00116	SAM 4.0	$68.00
04776	Suitcase Full/Upgrade 3.0	$68.00

CPUs

Upgradable to dual processors!

Monitor sold separately. Includes keyboard and mouse.



SUPERMAC

UMAX® *The Magic of Color™*

SuperMac S900L
- 150MHz PowerPC 604 processor
- 16MB RAM; 2GB Hard Drive
- 6.7X Speed CD-ROM Drive
- IMS TwinTurbo 128M graphics card

ONLY $3995 #90930

Umax

90930	SuperMac S900L 16/2GB 8CD	$3,995.00
90931	SuperMac S900D 16/No Hard Drive 8CD	$3,095.00

PowerComputing

PowerCenter 604/150MHz
- PowerPC 604 CPU
- 16MB RAM
- 1GB H.D.
- 4X CD Drive
- Keyboard and mouse

ONLY $2995 #86634

Monitor sold separately.

PowerComputing

86611	PowerWave 604/150 8/2GB CD Tower	$3,845.00
86600	PowerWave 604/150 8/1GB CD Tower	$3,545.00
86601	PowerWave 604/132 8/1GB CD Tower	$3,245.00
86602	PowerWave 604/150 8/1GB CD Desktop	$3,195.00
86603	PowerWave 604/120 8/1GB CD Desktop	$2,545.00
86635	PowerTower 604/166 16/2GB 4-CD Tower	$3,795.00
86636	PowerTower 604/166 16/2GB 4-CD Tower	$4,195.00
86631	PowerCenter 604/120 8/500 4-CD Low Pro	$1,899.00
86632	PowerCenter 604/120 8/500 4-CD Desktop	$1,995.00
86633	PowerCenter 604/132 16/1GB 4-CD Desktop	$2,495.00
86634	PowerCenter 604/150 16/1GB 4-CD Desktop	$2,995.00
86604	PowerComputing Stargate Risercard	$249.00

Call Today for Your FREE CATALOG!

1•800•416•9663

Fax (206) 603-2500 • International (206) 603-2550 • CompuServe code: GO MZ

CORPORATE SALES	GOVERNMENT SALES	EDUCATION SALES	INTERNATIONAL SALES
1-800-258-0882	1-800-372-9663	1-800-381-9663	1-206-603-2570

MasterCard VISA DISCOVER

© Copyright 1996 Multiple Zones International Inc. All rights reserved. The Mac Zone is a federally registered trademark.

Your Source Code MA04

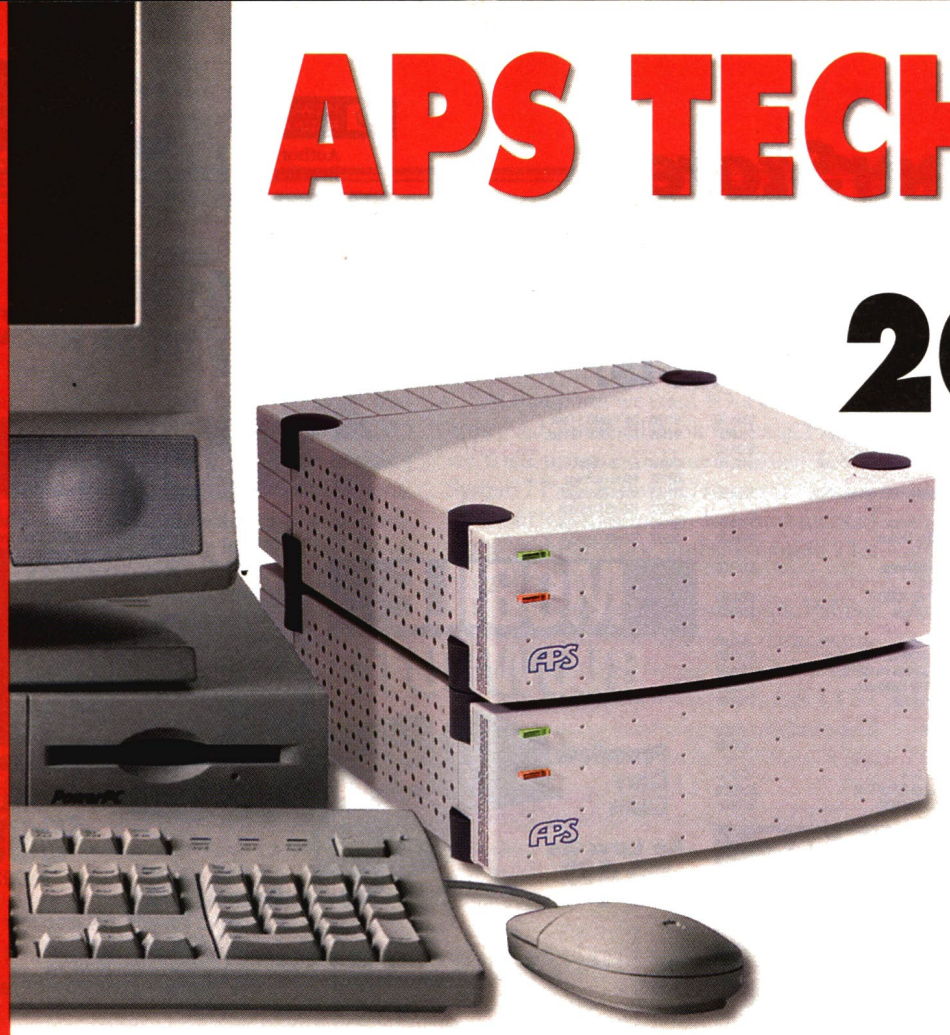
Overnight Delivery Just $3 per Order
Up to 10 lbs.

Before you buy, call The Mac Zone 1•800•416•9663

For the best Macintosh products at better than Warehouse and Superstore prices.

APS TECHNOLOGIES:

Call 800-677-3294 • 24 Hrs x 7 Days a Wk



2GB BARGAIN!

GREAT PRICE **$449.95** *Internal configuration*

IBM.

APS I 2160

- ✔ 8 ms average seek
- ✔ Over 2060MB formatted capacity
- ✔ The best value for performance and capacity
- ✔ 5-year warranty

What a deal – 2063MB for under $500! Great performance, MR heads, IBM's sector formatting technology, and an 800,000 hour MTBF make this drive a great buy for needy workstations running applications from database and spreadsheets to desktop publishing and imaging.

DESKTOP DRIVE DEAL

APS Q 840

GREAT PRICE **$189.95** *Internal configuration*

- ✔ Great value
- ✔ Low power requirements and low noise
- ✔ 810MB formatted capacity
- ✔ 3-year warranty

Quantum

The 810MB APS Q 840 is our most affordable SCSI drive and makes an excellent entry-level storage solution for home and office environments. It is based on Quantum's Trailblazer mechanism and supports data transfer rates of up to 3.06MB/sec.

NEW LIFE FOR SCSI POWERBOOKS!

APS I 1.2

$699.95 *Internal configuration*

- ✔ SCSI-2 interface
- ✔ Great for large applications
- ✔ Uses IBM's No-ID™ technology to increase capacity by reducing overhead

IBM.

The APS I 1.2 is a SCSI drive that's ideal for demanding spreadsheet, communication and graphics applications. At 4900 rpm, the drive gives you the performance you need from your PowerBook. Ideal upgrade for Blackbird (500) & Duo (200) series PowerBooks.

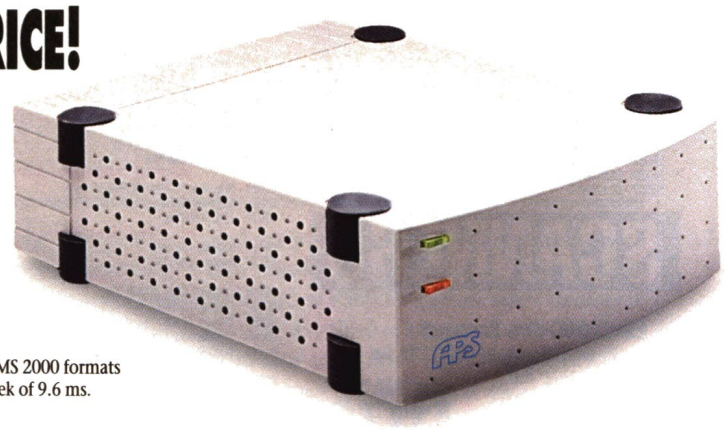
INCREDIBLE! 7200 RPM PERFORMANCE, 5400 RPM PRICE!

APS MS 2000

- ✔ 7.31MB/sec. sust. write, 4.54MB/sec. sust. read
- ✔ 5400 rpm mechanism
- ✔ 5-year warranty

$469.95 *Internal configuration*

MICROPOLIS



This incredible drive has the performance you would expect from a 7200 rpm mechanism but with a 5400 rpm drive's price – and reliability! The APS MS 2000 formats to 2047MB, delivers sustained reads at up to 4.54MB/sec. and sustained writes at up to 7.31MB/sec, has an average access time of 20 ms and average seek of 9.6 ms.

APS SCSI DRIVES

Model	Capacity/Features	Awards	Internal	SR2000
APS Q 840 Quantum 840 Trailblazer	**811MB** 4500 rpm		$189.95	$259.95
APS I 2160 IBM Ultrastar ES	**2063MB** 5400 rpm		449.95	NEW LOW PRICE! 499.95
APS MS 2000 Micropolis 4421	**2047MB** 5400 rpm		469.95	569.95
APS MS 2000AV Micropolis 4421AV	**2047MB** 5400 rpm		569.95	669.95

To receive an automated fax listing of all APS documents, call 800-374-5802 from any touch-tone telephone.

Then call 816-920-4150 from a fax machine with a handset or fax modem and follow the instructions.

APS IDE DRIVES FOR MACINTOSH

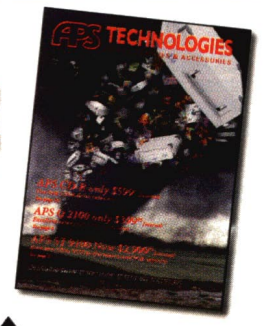
Model	Capacity/Features	Internal
APS Q 1280A Quantum Fireball II 1280	**1222MB** 5400 rpm (Fast ATA-2)	$229.95

APS POWERBOOK DRIVES

Model	Capacity/Features	Internal
APS Q 1.08 Quantum Europa	**1037MB** 3800 rpm, IDE - Fast ATA-2	$399.95
APS I 1.2 IBM Travelstar DPRS-21215	**1200MB** 4900 rpm, SCSI-2	699.95

CALL FOR YOUR FREE Summer 1996 CATALOG

Featuring our complete line of APS Drives, Supplies & Accessories



These products are performance-matched for optimal performance in the PowerPC environment.

Visit our Web Page at http://www.apstech.com/

1994 World Class Winner Macworld

MACWORLD MW EDITORS' CHOICE · MACWORLD MW SERVICE HERO · MacUser RECOMMENDS · MacUser EDITORS' CHOICE AWARD WINNER 1993 · BMUG FALL 1994 CHOICE PRODUCT · MacUser ZD LABS

MAC HOME Journal Award · WINDOWS MAGAZINE 1995 WIN 100 · 1995 MAC HOME JOURNAL READERS' CHOICE · Best Technical Support · MACWORLD World Class Award Winner · MCI

*Available only in full-height case

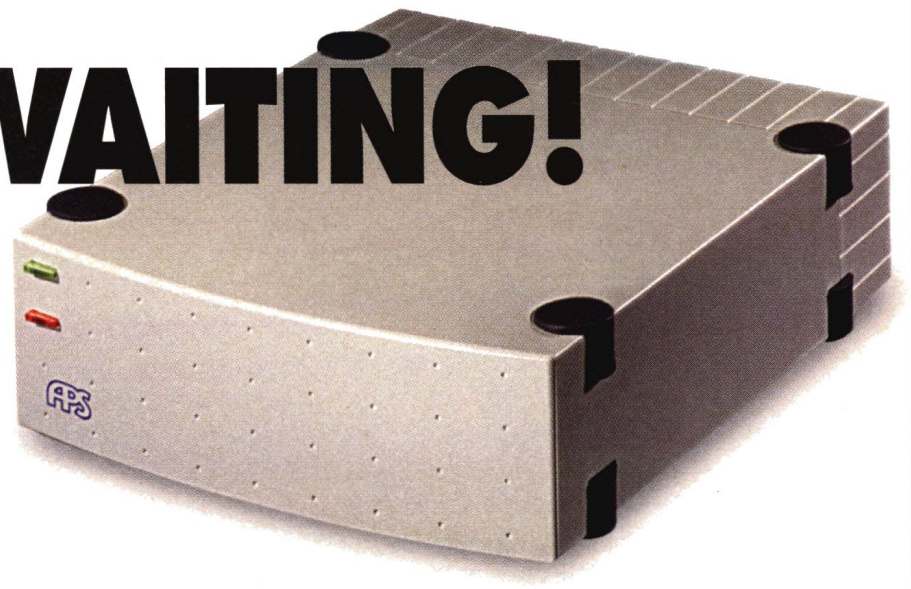
MacWEEK

THE NAME TO REMEMBER IN MACINTOSH DATA STORAGE

4 GIGS – NO WAITING!

NOW JUST **$899.95** *Internal configuration*

MICROPOLIS



APS MS 4.0

- ✔ Great drive for disk-intensive applications
- ✔ 7200 rpm mechanism
- ✔ Our fastest SCSI-2 4GB drive
- ✔ 5-year warranty

Supplying the speed and capacity needed with disk-intensive applications like 3D rendering and image editing, the APS MS 4.0 is a terrific choice for heavy-duty storage duties on your Power Mac or Quadra. This 7200 rpm performance champ formats to over 4GB and boasts sustained reads and writes of 4.1MB/sec. and 5.1MB/sec., respectively.

FAST/WIDE ADAPTER CARDS

QLogic Fast!SCSI Mac PCI-W Adapter for Fast/Wide drives	HD 68-Pin	$379.95
SiliconExpress IV For NuBus Quadras & Power Macs only. Fast/Wide adapter card.	HD 68-Pin	849.95

4GB HIGH-PERFORMANCE AT A GREAT PRICE

APS Q 4.0

JUST **$899.95** *Internal configuration*

Quantum

- ✔ Embedded servo eliminates thermal recalibration
- ✔ 7200 rpm mechanism delivers high transfer rates
- ✔ Transfer rates up to 4.56MB/sec.
- ✔ 5-year warranty

Using and embedded servo as well as a high-performance 7200 rpm Quantum Atlas mechanism, the APS Q 4.0 is equally at home with demanding AV and non-AV applications. The APS Q 4.0 also uses a huge 2MB cache to achieve sustained reads and writes of up to 4.45MB/sec. and 4.56MB/sec, respectively.

4GB FAST/WIDE PERFORMANCE CHAMP

APS MS 4.0W

JUST **$999.95** *Internal configuration*

MICROPOLIS

- ✔ Overall highest-performance hard drive
- ✔ Excellent for demanding graphic use
- ✔ Amazing 6.16MB/sec. reads & 13.70MB/sec. writes
- ✔ 5-year warranty

Remarkable speed is what you'll get with the APS MS 4.0W. Its 13.70MB/sec. sustained writes make it a perfect match for Photoshop, powerful graphics programs, large databases – really any disk-intensive application. The APS MS 4.0W is rated at 650,000 hours MTBF and is backed by a 5-year warranty.

4GB HIGH-PERFORMANCE AV

APS MS 4.0AV

JUST **$999.95** *Internal configuration*

MICROPOLIS

- ✔ 7200 rpm mechanism delivers high transfer rates
- ✔ Advanced cache management system
- ✔ Hybrid servo provides superior performance
- ✔ 5-year warranty

With sustained reads of over 4MB per second and sustained writes of over 5MB per second, the APS MS 4.0AV is the ideal entry to mid-level drive for AV use. Its thermal calibration helps prevent data stream interruption.

UNBELIEVABLE VALUE – 9GB FOR ONLY

APS MS 9.0

$1899.95 *Internal configuration*

MICROPOLIS

- ✔ Best cost per MB in its class
- ✔ 8669MB formatted capacity
- ✔ Best performance & value in 9GB drives
- ✔ 5-year warranty

The high capacity APS MS 9.0. formats to just under 9GB and has the lowest cost per MB in its class. It supports sustained reads of 3.55MB per second and writes of 5.82MB per second with an access time of 16 ms.

APS HIGH-PERFORMANCE SCSI DRIVES

Model	Capacity/Features	Awards	Internal	SR2000
APS MS 4.0 Micropolis 3243	4064MB 7200 rpm		$899.95	$999.95
APS Q 4.0 Quantum Atlas XP34300	4101MB 7200 rpm		899.95	999.95

APS HIGH-PERFORMANCE SCSI DRIVES

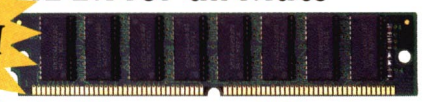
Model	Capacity/Features	Awards	Internal	SR2000
APS MS 4.0AV Micropolis 3243AV	4064MB 7200 rpm		$999.95	$1099.95
APS MS 9.0 Micropolis 1991	8669MB 5400 rpm		1899.95	2099.95*
APS MS 9.0AV Micropolis 1991AV	8669MB 5400 rpm		1999.95	2199.95*

APS FAST/WIDE SCSI DRIVES

Model	Capacity/Features	Awards	Internal	SR2000
APS MS 2.0W Micropolis 4221W	1955MB 7200 rpm		$649.95	$749.95
APS MS 2.0WAV Micropolis 4221WAV	1955MB 7200 rpm		749.95	849.95
APS MS 4.0W Micropolis 3243W	4064MB 7200 rpm		999.95	1099.95
APS MS 4.0WAV Micropolis 3243WAV	4064MB 7200 rpm		1099.95	1199.95

BUY NOW! Lowest RAM Prices in Years!!

RAM for all Macs



Call for current RAM prices

- 30-day money-back guarantee on all APS brand products. Your risk is the cost of shipping.
- Drive-for-Drive Repair or Replacement Warranty. APS will, at its discretion, replace or repair products found to be defective according to the terms of the product's warranty.
- Refused orders subject to 20% restocking fee.
- Listed capacities are formatted.
- Actual data compression and tape capacity vary greatly depending on the type of data recorded, other system parameters and environment.
- Internal hard drives include brackets, cables, cords and LEDs required for operation with the specified Macintosh where applicable. External SCSI-2 drives come with a premium SCSI cable, power cord and user guide.
- You may need to install system software appropriate to your machine before using our hard drives.
- Prices and specifications are subject to change without notice. Not responsible for typographical errors.
- Copyright © 1996 APS Technologies

30-day money-back guarantee on all APS brand products.

VISA MasterCard DISCOVER AMERICAN EXPRESS Card TeleCheck

APS International Sales (816) 920-4109

CALL TODAY! **800-677-3294**

Call 800-677-3294 • 24 Hrs x 7 Days a Wk

APS TECHNOLOGIES:

• 24 Hrs x 7 Days a Wk •

Call 800-677-3294

JAZ IS HERE!
1GB REMOVABLE!

GREAT PRICE $499.95

External configuration
SR 1000 or SR 2000 case
Delivery after 8/5/96

The APS Jaz is THE drive for all your removable storage needs. With fixed-platter drive performance and its huge 1GB capacity, the APS Jaz is the perfect choice for multimedia applications, page layout and graphics files, or even backup. The APS Jaz is available in either of our portable (AC-only) SR 1000 enclosure (shown above) or the SR 2000 enclosure, both of which provide APS' easy-to-use patented Digital Active Termination technology.

APS Jaz

- ✔ Hard drive performance
- ✔ Huge 1GB capacity on removable media
- ✔ Choice of AC-powered portable or SR 2000 enclosure

POWER MATCHED FOR POWER PC

650MB OPTICAL & 4X CD-ROM AT ONE LOW PRICE

APS PD4

GREAT PRICE $499.95 *External configuration*

- ✔ Combines removable optical storage and backup with CD-ROM in one device!
- ✔ Accepts 650MB rewritable optical cartridges and CD-ROMs interchangeably

The new APS PD4 is the most versatile drive available for your Mac. Combining a fast 4X CD-ROM player with rewritable 650MB optical cartridge drive, the APS PD4 saves a SCSI address while performing these two important desktop functions.

REALLY FAST BACKUP!

APS HyperDAT® Pro $999.95 *External configuration*

- ✔ Fastest DAT tape drive available
- ✔ Backup at up to 50MB/minute!
- ✔ Up to 8GB of storage per 120m DAT tape
- ✔ The new performance standard for network backup

POWER MATCHED FOR POWER PC

With backup speeds as high as 50MB per minute, the APS HyperDAT Pro is the economical way to cut your backup (and restore) window in half. Ideal for server backups that require minimal downtime, the APS HyperDAT Pro uses standard 120m DDS-2 tapes which hold up to 8GB with compression*, and is compatible with all DDS and DDS-DC compliant tapes and mechanisms.

**assumes 2:1 compression ratio*

HIGH PERFORMANCE 8X CD-ROM!

APS CD8 Pro $299.95 *External configuration*

- ✔ Fast 1.2MB/sec. transfer rates
- ✔ 115 ms average access
- ✔ Smooth video output

POWER MATCHED FOR POWER PC

Take advantage of the high performance 8X CD-ROM speed of the new APS CD8 Pro to supercharge any CD-ROM application. The APS CD8 Pro's 1200KB per second maximum transfer rates in 8X mode provide smoother full-screen video output than earlier generations of CD-ROM drives, and makes it terrific for use with large, complex files. Additionally, the fast average access time of the APS CD8 Pro makes it a great match with interactive multimedia.

APS QIC & DAT TAPE BACKUP SYSTEMS

Model	Capacity/Features	Awards	Internal	SR2000
APS HyperQIC™ Travan 4 Mechanism	2GB	MacWeek ◆◆◆◆ MacUser ZD LABS 4½	N/A	$499.95
APS HyperDAT® DDS-2 Compression Mechanism	8GB	POWER MATCHED FOR POWER PC	$849.95	899.95
APS HyperDAT® Pro DDS-2 High-Speed Mechanism	8GB	POWER MATCHED FOR POWER PC	949.95	999.95

APS MO DRIVES

Model	Capacity/Features	Awards	SR2000
APS 230 MO 4500 rpm drive/230MB	230MB	MacUser ZD LABS 4	$449.95
APS PD4 650MB optical storage with 4X CD-ROM in one device	CD-ROM/Removable Optical		499.95*
APS 2.6GB MO 4MB cache/2.6GB	2.6GB Uses 2.6GB cartridges or 1.3GB cartridges	POWER MATCHED FOR POWER PC	1799.95

APS DLT TAPE BACKUP SYSTEMS

Model	Capacity/Features	Awards	Full-Height
APS DLT30 Digital Linear Tape Mechanism	30GB	POWER MATCHED FOR POWER PC MacUser EDITORS' CHOICE AWARD 1995 FINALIST	$2999.95
APS DLT40 Digital Linear Tape Mechanism	40GB	POWER MATCHED FOR POWER PC	4999.95
APS DLT4500 Digital Linear Tape Loader	200GB	POWER MATCHED FOR POWER PC	8899.95

All APS tape drives include Retrospect® by Dantz®

- 30-day money-back guarantee on all APS brand products. Your risk is the cost of shipping.
- Drive-for-Drive Repair or Replacement Warranty. APS will, at its discretion, replace or repair products found to be defective according to the terms of the product's warranty.
- Refused orders subject to 20% restocking fee.
- Listed capacities are formatted.
- Actual data compression and tape capacity vary greatly depending on the type of data recorded, other system parameters and environment.
- Internal hard drives include brackets, cables, cords and LEDs required for operation with the specified Macintosh where applicable. External SCSI-2 drives come with a premium SCSI cable, power cord and user guide.
- You may need to install system software appropriate to your machine before using our hard drives.
- Prices and specifications are subject to change without notice. Not responsible for typographical errors.
- Copyright © 1996 APS Technologies

APS REMOVABLES

Model	Capacity/Feature	Awards	SR1000	SR2000
APS SQ 5200 Compatible with 200, 88 and 44MB cartridges	194MB	MacWeek RECOMMENDS MacUser ZD LABS 4½	N/A	$349.95
APS M540 Compatible with SyQuest 270 & EZ 135 cartridges	500MB		N/A	399.95
APS Jaz 1GB Jaz cartridges $99.95 ea.	1GB		$499.95	499.95

BUY NOW! Lowest RAM Prices in Years!!

RAM for all Macs

Call for current RAM prices

1994 World Class Winner Macworld

MACWORLD MW EDITORS' CHOICE · MACWORLD MW SERVICE HERO · MacUser RECOMMENDS · MacUser EDITORS' CHOICE AWARD 1993 WINNER · BMUG CHOICE PRODUCT · MacUser ZD LABS

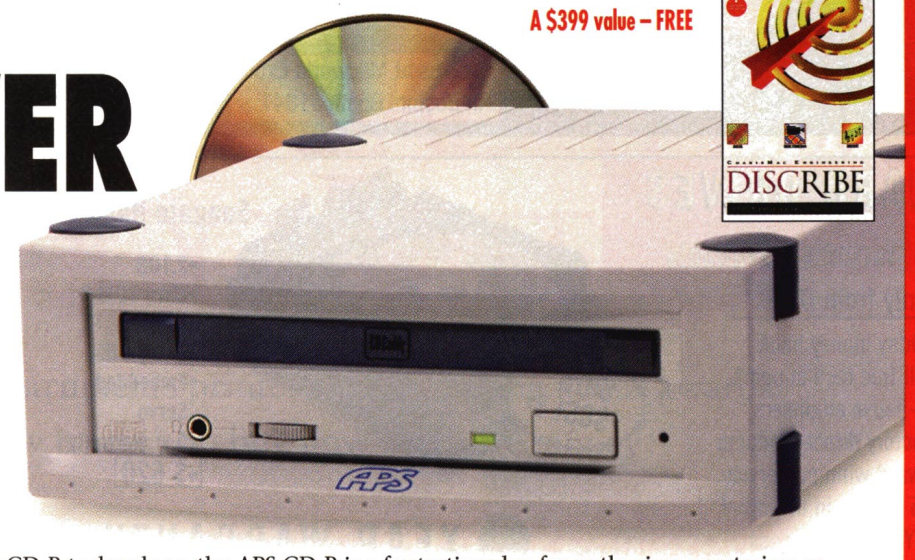
MAC HOME Journal Award · WINDOWS MAGAZINE 1995 WIN 100 · 1994 MAC HOME JOURNAL READERS' CHOICE · Best Technical Support · MACWORLD 1993 World Class Award Winner · MCI

◆◆◆◆MacWEEK

THE NAME TO REMEMBER IN MACINTOSH DATA STORAGE

LOWEST PRICE EVER ON PACKET WRITING CD-R!

A $399 value – FREE



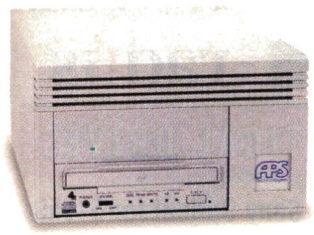
NOW JUST **$599.95** *External configuration*

APS CD-R

- ✔ Uses CD media with 100-year shelf life
- ✔ Random access gives you fast retrieval
- ✔ Supports variable and fixed packet writing

At the lowest price ever for Sony 2x by 2x CD-R technology, the APS CD-R is a fantastic value for authoring, mastering or backing up to CDs. CD-R media costs less than 2¢ per MB and has an estimated 100-year shelf life. The APS CD-R is based on Sony's CDU-920S mechanism with its giant 1MB cache buffer, and supports packet writing and all popular CD formats specified in the Orange Book Part II. The APS CD-R comes with a FREE copy of Discribe CD recording software and it can be used with Retrospect as a backup device.

ULTIMATE CD-R MASTERING SYSTEM



APS CD-R Mastering System 2.0

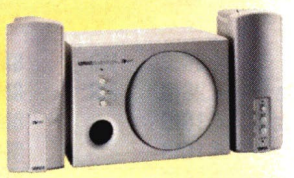
- ✔ High-performance 4X CD-R drive & high-performance 2GB AV drive
- ✔ Free copy of TOAST CD-ROM Pro – a $500 value
- ✔ Now comes with the new APS MS 2000AV hard drive!

$1999.95 *External configuration*

The ultimate goal when burning CD-R media is a successful burn on the first try, minimizing wasted media, and our new high-performance CD-R Mastering System helps you meet that goal. Combined in a single full-height enclosure, you'll find a high-performance 4X/4X CD-R drive and 2GB of high-performance AV storage. You'll also receive a FREE copy of TOAST CD-ROM Pro recording software – a $500 value – to complete the task.

Yamaha System 45

- Enhances any multimedia application
- Adds thumping, deep bass response to your computer
- Magnetically shielded
- Includes a pair of YST-15 speakers and a thundering subwoofer



106359 **$209.95**

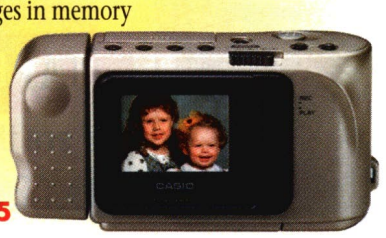
GRAND Vision® Mac Wizard

- Send broadcast quality stills and video from your Mac to any TV, television projector or VCR
- Perfect for presentations, video training sessions, sales meetings, and trade shows
- Hardware-only solution

105376 **$299.95**

Casio QV-10A *plus* Digital Camera

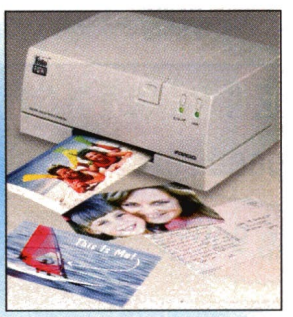
- 1.8 inch color TFT active matrix viewfinder
- Send images to a Mac or PC, view on a TV, copy on a VCR
- Stores up to 96 images in memory
- Includes Adobe's PhotoDeluxe™ software



106364 **$499.95**

FotoFUN!

- Full color output from digital images
- Includes a print film kit and color matching software
- Print full color photos, postcards, and mugs* right from your Mac



106249 **$489.95**

*With optional photo mug kit

APS MEDIA SALE

SONY.	SALE PRICE	maxell	SALE PRICE
CD-R 74 Min 10pk	$89.95	60m DAT	$5.95
QW-3080	29.95	90m DAT	9.95
230 MO Cartridge	21.95	120m DAT	24.95
FUJI	**SALE PRICE**	**3M**	**SALE PRICE**
DLT30 Media	$45.95	650MB PD Cartridge	$49.95
DLT40 Media	109.95	2.6GB MO	99.95

APS CD DRIVES

Model	Features	External
APS CD8 Pro	**8X-SPEED** Data transfer rates up to 1200KB per second!	$299.95
APS PD4	**CD-ROM/Removable Optical** 650MB optical storage with 4X CD-ROM in one device	499.95*
APS CD-R	**Recordable CD-ROM** FREE Discribe CD recording software ($399 value)	599.95*
APS CD-R Plus	**Recordable CD-ROM** FREE TOAST CD-ROM Pro recording software ($500 value)	899.95*
APS CD-R Pro	**4X4 Performance CD-R** FREE TOAST CD-ROM Pro recording software ($500 value)	1499.95**
APS CD-R Mastering System 2.0	4X read/4X write recording engine and a 2GB AV scratch disk	1999.95*
APS CD-R Mastering System 4.0	4X read/4X write recording engine and a 4GB AV scratch disk	2499.95*

*While supplies last! CALL NOW!

**Available only in full-height case*

UMAX PageOffice

- Document feeder holds up to 10 pages
- Fax, E-mail, edit, file or print scanned pages
- Includes OCR software and uses a SCSI interface

105304 **$209.95**

These products are performance-matched for optimal performance in the PowerPC environment.

30-day money-back guarantee on all APS brand products.

VISA MasterCard DISCOVER AMERICAN EXPRESS Card TeleCheck

APS International Sales (816) 920-4109

CALL TODAY! **800-677-3294**

Call 800-677-3294 • 24 Hrs x 7 Days a Wk

DIRECT CONNECTIONS

800-572-4305

Int'L: 612-937-9771 FAX: 612-937-6285

Web Watch
www.directdc.com

See us at Macworld Expo in Boston. Booth #1841

We are the High-end storage configuration Experts. Call us for your solutions on RAID Sytems, Video, Networks, and Jukebox applications. All Platforms.

"Direct Connections provided excellent technical support." **MacWorld July'95**
"Direct Connections' array offered the best performance per dollar of the drives tested." **Digital Video Oct. '94**
"Your next option is to locate...highly visible digital video suppliers like Direct Connections." **NEWMEDIA June '95**
"This array is the one to beat." **Ken Grey** Writer for WIRED, Computer User, MovieMaker, Computer Video, and Digital Video Magazine.
"Stick with a vendor such as Direct Connections that understands how to prepare a RAID for desktop video." **MacWorld April '95**

HARD DRIVES

Differentials available

Only from DC

- 30day money back
- Toll free tech support
- In-house engineers
- Factory direct products
- Award winning service
- $5 million in inventory
- 9 Years in business

Seagate Hawk 2XL

- 2.1GB
- Ultra SCSI 3
- PRML
- Low profile
- Embedded Servo
- 5 yr warranty
- $ 620

5 YEAR WARRANTY

BRAND/MODEL	CAPACITY		ACCESS	RPM	INTERNAL	EXTERNAL
Hitachi 2.5" IDE***	810MB		14MS	5400	$ 339	
Hitachi 2.5" IDE***	1.0GIG		14MS	5400	$ 425	
Seagate ST51080N ***	1.2GIG	LP	12.5MS	5400		$ 360
Seagate Hawk 2XL***	1.2GIG	LP	9MS	5400		$ 469
Conner CFP2107S	2.1GIG	LP	8MS	7200	$ 615	$ 685
Seagate 32155N	2.1GIG	Ultra SCSI	9MS	5400		$ 620
Quantum Atlas	2.1GIG	LP	8MS	7200	$ 595	$ 765
Seagate Barracuda 2	2.5GIG	LP	8MS	7200		$ 795
Seagate Barracuda 2W	2.5GIG	LP	8MS	7200		$ 865
Fujitsu M2934S	4.2GIG	MR	8MS	7200	$ 975	$ 1045
Fujitsu M2934Wide	4.2GIG	MR	8MS	7200	$ 975	$ 1045
Seagate Barracuda 4	4.1GIG		8MS	7200		$ 1205
Seagate Barracuda 4W	4.1GIG		8MS	7200		$ 1325
Seagate Hawk4	4.3GIG		9MS	5400		$ 999
Conner CFP4207S	4.2GIG		9MS	7200	$ 949	$ 1019
Conner CFP4207wide	4.2GIG		9MS	7200	$ 1099	$ 1199
Quantum Atlas	4.3GIG		8.6MS	7200	$ 999	$ 1069
Seagate Elite 9	9.0GIG		11MS	5400		$ 2195
Seagate Elite 9W	9.0GIG		11MS	5400		$ 2395

CD RECORDERS/PLAYERS

Ricoh 2 speed recorder / 4 speed player
1420

2MB Buffer

$999

The only CD Recorder in the industry with 2MB of Buffer to eliminate under-runs ! This is the Recorder that the Audio Community is using. You should too!

Includes Free software

Yamaha 4 speed Recorder / 4 Player	External	$ 1299
Yamaha 2 speed Recorder / 4 speed Player	External	$ 849
Yamaha 2x 4 Recorder with built in hard drive	External	$ 1329
Ricoh 2x 4 Recorder 512K buffer	External	$ 825
Pioneer 4 speed 18-Disc CD-ROM Changer	External	$ 1499
Philips 8 x speed CD Player	External	$ 325
Nakimichi 8 x 4-Disc CD-ROM Changer	External	$ 599
Panasonic 4x CD/650MB Optical	External	$ 499
150 Slot Jukebox with 4 players, all platforms	External	$ 15900
150 Slot Jukebox w/ CD Recording, all platforms	External	$ 17500
CD Duplicator. Just hit the button, walk away.	External	$ 5999

CD Network Archiving, Libraries, and Recording. All Platforms.

"Stick with a vendor such as Direct Connections that understands how to prepare a RAID for desktop video." MacWorld April '95

RAID SYSTEMS

FAST DESKTOP OR SERVER

- 28mb/sec sustained sequential Writes.
  Tested with MacBench on PowerMac 9500.
  12GIG with 2 PCI accelerator cards $ 6999

From Hardware RAIDS to Software RAIDS, we'll show you how to configure the best system to meet your needs.

Atto Silicon Express IV	$ 755
Atto Express PCI MC	$ 695
Atto Express PCI SC	$ 315
Adaptec AHA-2940UW	$ 295
Adaptec AHA-3940UW	$ 355
SCSI Expander	$ 999

External, Remus software, and cabling

4 GIG Fast and Wide Raid	$ 2099
8 GIG Fast and Wide Raid	$ 2599
16 GIG Fast and Wide RAID	$ 5570
28 GIG Fast and Wide RAID	$ 9199
40 GIG Fast and Wide RAID	$ 14599

MEDIA 100 TARGA 2000 radius

OPTICAL DRIVES

$1959

2.6GIG Sony Optical for $1959 external including all cabling, and software!!

1 YEAR WARRANTY

CAPACITY	MODEL	EXTERNAL
230MB	Fujitsu	$ 499
2.6GB	Hitachi	$ 1895
2.6GB	Sony 1MB cache	$ 1959
2.6GB	Sony 4MB cache	$ 2159
26GB	Sony Jukebox	$ 4695
52GB	Sony Jukebox	$ 6295

TAPE BACK-UP

We are the tape-backup Experts

2 YEAR WARRANTY

With 2.5MB/sec sustained transfer, the DLT2000XT is perfect for digital video or pre-press with large data files.

$2999

30GIG

All systems include cabling, and Retrospect software.

CAPACITY	MODEL	MEDIA	INTERNAL	EXTERNAL
-4GIG	Tandberg	1/4"	$ 469	$ 539
-8GIG	DC8000	4MM	$ 839	$ 899
-8GIG	Sony 7000 DDS-2* 1.5MB/sec	4MM	$ 929	$ 999
-14GIG	Exabyte 8505XL	8MM	$ 2065	$ 2125
-14GIG	Exabyte 8700	8MM		$ 1575
-40GIG	Exabyte Mammoth	8MM		$ 5499
-30GIG	DLT2000XT	1/2"		$ 2999
-40GIG	DLT4000	1/2"		$ 4599
-140GIG	Exabyte-10h Library	8MM		$ 4999
-200GIG	DLT4500 Loader	1/2"		$ 8799

DIRECT CONNECTIONS 7668 Executive Drive Eden Prairie, MN 55344 Gov't, Corp, and Univ. P.O's accepted. DISCOVER NOVUS VISA MasterCard *1YR Warranty No 30 day money back on media and software.

WITH PRICES THIS LOW, BY THE TIME YOU READ THIS, IT MAY BE TOO LATE.

As recently as February of 1996, these Texas Instruments printers were winning major awards. Today, we're selling them at incredibly low prices* So buy now and save money!

microLaser 600
Affordable PostScript® Solution

- 5 pages per minute
- True 600 x 600 dpi
- 250-sheet tray & straight paper path
- Mac®, Windows® & DOS ready
- PS Level 2 & PCL™5 emulation

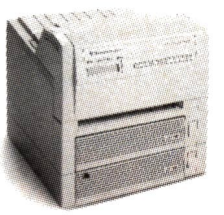
MacUser ★★★★

NOW $679

microLaser PowerPro
High Performance Printing

- 12 pages per minute
- True 600 x 600 dpi
- 500-sheet paper capacity
- Mac, Windows & DOS ready
- PS Level 2 & PCL™5 emulation

PC WORLD TOP 10 PRINTERS



NOW $1199

All printers come with a 1 year limited warranty and toll free technical support.

TEXAS INSTRUMENTS

TI EXPRESS™
1-800-TI-TEXAS
SELECT OPT. 2, THEN 1

MacWAREHOUSE
1-800-255-6227

COMPUTER DISCOUNT WAREHOUSE CDW CIRCLE OF SERVICE
1-800-656-4CDW

Insight
1-800-359-1588

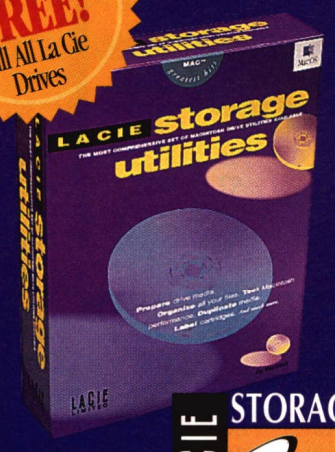
PC Connection / MacConnection
1-800-600-9257

Dealer prices may vary. *Offer good while supply lasts. Mac is a registered trademark of Apple Computer, Inc. Windows is a registered trademark of Microsoft Corp. PostScript is a registered trademark of Adobe Systems, Inc. PCL is a trademark of Hewlett-Packard. microLaser is a trademark of Texas Instruments. ©1996 TI.

LACIE LIMITED

offers a world of storage solutions

La Cie Storage Utilities FREE!* Will All La Cie Drives



All products bearing this Storage Utilities mark include acclaimed Silverlining Disk management software plus four other vital performance enhancements, a $99 value...**FREE!**

30 Day Money Back Guarantee

Toll Free Technical Support

Factory Direct Quality & Value

Ready to Plug And Play

INTERNAL HARD DRIVES

Special LOW Price

▲ High-performance drive and controller technology.

$838

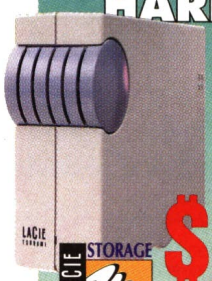
Quantum Atlas 4.3 GB

3.5" Drives

1080MB Quantum Fireball*	3 yr. warr.	$234
1280MB Quantum Fireball	3 yr. warr.	$257
2160MB Ultrastar ES	5 yr. warr.	$399
2.1GB Quantum Fireball TM	4,500 rpm 3 yr. warr.	$399
3.2GB Quantum Fireball TM	4,500 rpm 3 yr. warr.	$499
4.3GB Quantum Atlas	7,200 rpm 5 yr. warr.	$838

Brackets available for $10 with internal hard drive purchase.
★ While supplies last.

EXTERNAL HARD DRIVES TSUNAMI



▲ Ready to plug and play with switchable active termination, cables, & La Cie Storage Utilities.

▲ Up to 4.3GB capacity in a 6.5"x8.5"x2.2" compact case.

$489

Ultrastar ES 2160 MB

Tsunami External Drives

1080MB Quantum Fireball*	3 yr. warr.	$299
1280MB Quantum Fireball	3 yr. warr.	$327
2160MB Ultrastar ES	5 yr. warr.	$489
2.1GB Quantum Fireball TM	4,500 rpm 3 yr. warr.	$489
3.2GB Quantum Fireball TM	4,500 rpm 3 yr. warr.	$589
4.3GB Quantum Atlas	7,200 rpm 5 yr. warr.	$919

★ While supplies last.

POWER WIDE HARD DRIVES

▲ Utilize Wide-SCSI technology for high-speed, high capacity file transfer

FAST: 1 drives + 1 card
WRITE 7.0 MB/Sec
READ 7.7 MB/Sec

FASTER: 2 drives, 2 cards + RAID
WRITE* 13.0 MB/Sec
READ* 14.3 MB/Sec

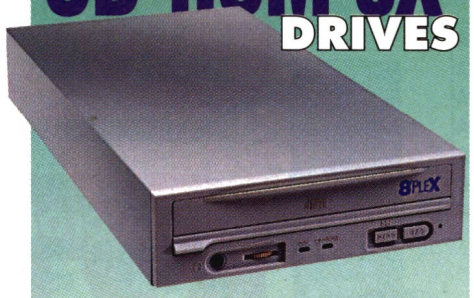
FASTEST: 3 drives, 3 cards + RAID
WRITE* 32.8 MB/Sec
READ* 27.0 MB/Sec

Power Wide External Drives

2.0GB Quantum Atlas Wide + Wide PCI Adaptec 2940 Board	NEW!	$1099
2.0GB Quantum Atlas Wide + RAID + Wide PCI Adaptec 2940 Board	NEW!	$1199
4.0GB Quantum Atlas Wide + Wide PCI Adaptec 2940 Board	NEW!	$1299
4.0GB Quantum Atlas Wide + RAID + Wide PCI Adaptec 2940 Board	NEW!	$1399

★ RAID Level 0 (Striped) For PCI Macs only

CD-ROM 8X DRIVES



▲ Fastest access speed available.

▲ Transfer rates up to 1200kb/sec.

▲ Smooth audio and video playback.

$249

8X CD-Rom

8X CD-Rom External	$249

CD-R DRIVES

▲ Low cost media for backup.

▲ CD-Rs ship with Gear Multimedia software.

▲ Create your own CD with fast write capability.

$1299

4X CD Recorder

CD-Recorders

4X CD Recorder with Gear MultiMedia		$1299
650 CD-R Disk 74 Minutes	**10 Disk Pack**	$89

OPTICAL DRIVES

▲ Optical is the new standard in removable reliability.

▲ Available in two popular capacities.

▲ Compact storage convenience.

$1799

2.6GB Optical

230MB PowerBook Internal	1 yr. warr.	$399
230MB Optical Cartridge		$25
640MB External		$599
640MB Optical Cartridge		$49
2.6GB External	1 yr. warr.	$1799
2.6GB Optical Cartridge		$99

DAT AND DLT DRIVES

▲ The ideal medium for data backup.

▲ The cheapest backup solution per megabyte.

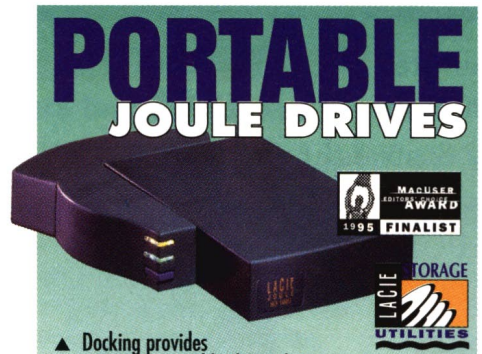
$899

8.0GB DAT DDS-2

DAT Drives Includes Retrospect

8.0GB DAT DDS-2 External	$899
8.0GB TURBO DAT DDS-2 External	$999
30.0GB Quantum DLT External	$2999
40.0GB Quantum DLT External	$4999

PORTABLE JOULE DRIVES



MACUSER EDITORS' CHOICE AWARD 1995 FINALIST

▲ Docking provides new security and backup solutions.

▲ Share hard disk-sized files with diskette convenience.

▲ Unplug and go for convenient data transport.

Joule 3.5" Drives with Dock

1280MB Quantum Fireball	3 yr. warr.	$399
2.1GB	3 yr. warr.	$659
3.2GB	3 yr. warr.	$759

TOWER JOULE DRIVES

3.5" Drives with Mount

For use in Tower with a Joule Base.

1280MB Quantum Fireball	3 yr. warr.	$399
2.1GB	3 yr. warr.	$659
3.2GB	3 yr. warr.	$759
4.3GB Quantum Atlas	5 yr. warr.	$1099

Joule Bases - Supports Stacks Up To 6 Drives High

2.1GB Ultrastar ES HD	3 yr. warr.	$689
3.2GB Ultrastar ES HD	3 yr. warr.	$789

LACIE LIMITED

1995 MAC HOME JOURNAL READERS' CHOICE

MAC HOME JOURNAL

MACUSER EDITORS' CHOICE AWARD 1995 FINALIST

MACWORLD MW EDITORS' CHOICE

Mon.– Fri. 5AM-7PM & Sat. 8AM-NOON PST
International 503-520-9000
Fax 503-520-9100 (24 hrs.)
http://www.lacie.com/~lacie

* La Cie Storage Utilities FREE with the purchase of a La Cie Drive. Call for details, conditions, limited money back guarantee, and free offers. Prices do not include shipping and only apply to products shipped within the continental United States. Add sales tax where applicable. Tsunami, Joule, Joule Portable, Silverlining, La Cie and the La Cie logo are trademarks of La Cie, Ltd. All other trademarks are the property of their respective companies. All prices, specifications, terms, warranties, descriptions, products and services herein are subject to change without notice or without recourse. © Copyright 1996 La Cie, Ltd. All rights reserved.

SILVERSCANNERS

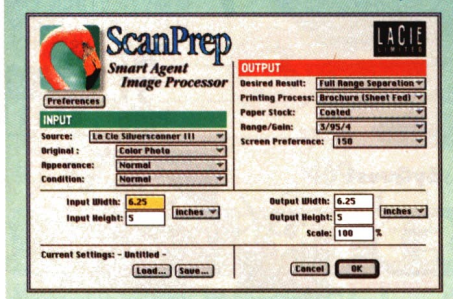
AWARD-WINNING COLOR

Compare these features:

- Color previews in seconds.
- Scans in under a minute.
- The industry's leading scanning software.

"ScanPrep is an essential application if you own a scanner… the sort of program that has to be seen to be believed."
Ben Long – MacWeek
Highest Possible Rating

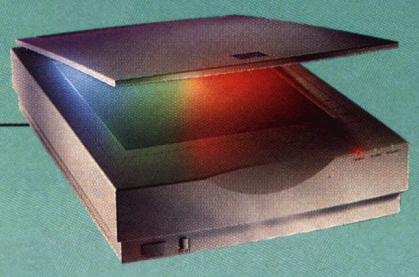
"No matter what acquired plug-in you get if you use Photoshop, you'll also want to buy a copy of ScanPrep."
– MacUser
Highest Possible Rating



FREE with all La Cie scanners, ScanPrep automates Photoshop's* image processing tools, individually preparing each image for printing right before your eyes. Simply describe the project to ScanPrep and scan the base image. ScanPrep yields professional prepress results, quickly and easily.

ScanPrep provides automatic adjustment of picture contrast and color saturation. Even when the original is lacking in contrast or saturation, it corrects the problem without human intervention.

Silverscanner PRO
24 bit color, 300 x 600 dpi interpolated to 1200 dpi.
▲ Silverscan
▲ ScanPrep
▲ Omnipage Lite OCR
$499



Silverscanner PRO with Photoshop LE
24 bit color, 300 x 600 dpi interpolated up to 1200 dpi.
▲ Photoshop LE
▲ ScanPrep ▲ Silverscan
▲ Omnipage Lite OCR
$599

Silverscanner DTP
30 bit color, 400 x 800 dpi interpolated to 3200 dpi.
▲ Silverscan
▲ ScanPrep
▲ Omnipage Lite OCR
$799

Silverscanner DTP with Photoshop LE
30 bit color, 400 x 800 dpi interpolated up to 3200 dpi.
▲ Photoshop LE
▲ ScanPrep ▲ Silverscan
▲ Omnipage Lite OCR
$889

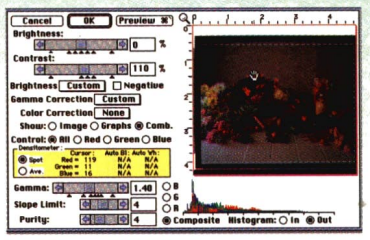
Silverscanner III
30 bit color, 600 x 1200 dpi interpolated up to 4800 dpi.
▲ Silverscan
▲ ScanPrep
▲ Omnipage Lite OCR
$1499

Silverscanner III with Photoshop Full
30 bit color, 600 x 1200 dpi interpolated up to 4800 dpi.
▲ Photoshop (Full Edition)
▲ ScanPrep ▲ Silverscan
▲ Omnipage Lite OCR
$1659

Sheet Feeder Adapter (DTP and III) **$499**
Transparency Adapter (DTP and III) **$799**

No matter which software bundle you choose, you'll also receive Silverscans' award-winning scanning software giving you professional scans.

* Full version only.



REMOVABLE DRIVES

- 1 GB of data on sturdy and compact 3.5-inch disks.
- Exclusive La Cie metal case includes power supply.
- Includes **3** cartridges!

$649
JAZ 1GB w/3 Cartridges

SYQUEST EZ135MB 2 yr. warr. Includes **ONE FREE** cartridge! ($18 Value)	$109
SYQUEST EZFLYER 230MB Includes **ONE FREE** cartridge! ($30 Value)	$299
IOMEGA JAZ 1GB External Includes **THREE FREE** cartridges! ($357 Value)	$649

CARTRIDGES

	Qty. 1	Qty. 10
Jaz 1GB	$119 ea.	$99 ea.
Syquest SQ400 44MB	$38 ea.	$37 ea.
Syquest SQ800 88MB	$42 ea.	$41 ea.
Syquest SQ2000 200MB	$62 ea.	$61 ea.
Syquest SQ105 105MB	$53 ea.	$52 ea.
Syquest EZ135 135MB	$18 ea.	$17 ea.
Syquest EZFlyer 230MB	$30 ea.	$29 ea.
Syquest SQ3270 270MB	$48 ea.	$47 ea.
Optical 128MB	$16 ea.	$15 ea.
Optical 230MB	$21 ea.	$20 ea.
Optical 640MB	$49 ea.	$48 ea.
Optical 1.3GB	$59 ea.	$58 ea.
Optical 2.6GB	$85 ea.	$84 ea.
CD-R 74 650MB		$8 ea.
DAT 90m	$9 ea.	$8.50 ea.
DAT 120m	$24 ea.	$25 ea.
DAT Cleaning Kit	$9 ea.	$8 ea.
DLT 30 30GB	$40 ea.	$39 ea.
DLT 40 40GB	$98 ea.	$97 ea.

CLEARANCE

90 day warranties. Some drives are refurbished. No rain checks. Quantity is limited to stock on hand. First come, first served.

HARD DRIVES	PRICE
80MB 2.5" Quantum Internal	$79
270MB 3.5" Quantum Internal	$89
540MB Quantum External	$149
1080MB Quantum Internal	$199
1400MB Quantum Internal	$229
2.1GB Quantum Internal	$369
2.1GB Seagate Internal	$369
4.3GB Quantum Internal	$799
REMOVABLE DRIVES	**PRICE**
155MB Teac Internal	$29
270MB SyQuest External	$279

LACIE LIMITED

INTERNAL HARD DRIVE
$399
2160 MB
Ultrastar ES

EXTERNAL HARD DRIVE
$327
1280 MB
Quantum Fireball

award-winning customer support

Toll-free tech line:
1-800-288-9919
http://www.lacie.com/~lacie

Call 1-800-999-1748

AMERICAN EXPRESS · VISA · DISCOVER · MasterCard

1-800-258-2622 CLUBMAC 1-800-258-2622 CLUBMAC 1-800-258-2622

CLUBMAC REMOVABLE STORAGE

NEW LOW PRICE

Zip 100MB Drive

1 Year Manufacturer's Warranty

Includes One Free Cartridge

$199.95 - $50.00* = $149.95

* Manufacturers Mail-in Rebate (ends 9/15/96)

I044 1010 **Zip Drive** with One 100MB Cartridge ..... $199.95-$50=$149.95

SyQuest® EZ135 Drive

$119.95 S198 2001

Mac OS COMPATIBLE

Backed by ClubMac's 30 DAY Money Back Guarantee

S198 2001 **SyQuest EZ135 135MB 3.5" Removable** (Cartridge included) $119.95

Jaz Cartridge (1.0GB)		
I040 1015	1 Pack	$124.95
I040 1017	5 Pack	$499.95
Zip Cartridge (100MB)		
I040 1006	1 Pack	$19.95
I040 1011	3 Pack	$49.95
I040 1010	10 Pack	$149.95
	- $20 Rebate =	$129.95

Jaz 1.0GB Drive

Includes One Free Cartridge

$499.95 I044 1014

1 Year Manufacturer's Warranty

1GB drive jaz

In Stock

I044 1014 **Jaz Drive** with One 1.0GB Cartridge $499.95

ClubMac 270MB SyQuest® Drive

BEST BUY

NEW LOW PRICE

$169 C104 1802

Backed by ClubMac's 30 DAY Money Back Guarantee

Mac OS COMPATIBLE

MacUser ★★★★

C104 1802 **ClubMac 270MB 3.5" Removable** (Cartridge not included) $169

C104 1803 **ClubMac 105MB 3.5" Removable** (Cartridge not included) $99

C104 1801 **ClubMac 200MB 5.25" Removable** (Cartridge not included) $389

ClubMac®

Backward Compatible with SyQuest 270 Media

$299 C104 2500

MCD540 540MB REMOVABLE

FEATURES AND SPECIFICATIONS

- 10MS access time
- 5MB/sec. transfer rate
- 2 year drive warranty
- 5 year cartridge warranty
- Double door on drive to prevent contamination
- Motorized eject system
- Auto-switching power supply
- 30 Day Money Back Guarantee

Mac OS COMPATIBLE

Backed by ClubMac's 30 DAY Money Back Guarantee

2 Year Manufacturer's Warranty

ClubMac NEW PRODUCT

C104 2500 **ClubMac MCD540 540MB Removable Drive** w/o cartridge $299

N220 1005 **ClubMac MCD540 540MB Removable Media** $59

SyQuest Media

Part Number	Media	Qty 1	Qty 10	Qty 20
S198 1010	44MB	$40ea	$39.50ea	$39ea
S198 1011	88MB	$44ea	$43.50ea	$43ea
S198 1012	200MB	$69ea	$68ea	$67ea
S198 1013	105MB	$35ea	$34.50ea	$34ea
S198 1014	270MB	$57ea	$56ea	$55ea
S198 2010	EZ135MB	$19ea	$18.50ea	$18ea
S198 2011	EZ230MB	$30ea	$29.50ea	$29ea

SyQuest 5 YEAR Warranty

CLUBMAC HARD DRIVES

Quantum ATLAS 4.3GB

BEST BUY

7200 RPM 1024K CACHE

Internal Atlas C104 0005

$899

Backed by ClubMac's 30 DAY Money Back Guarantee

Manufacturer's 5 Year Warranty

Capacity	Model	Part No.	Internal	Part No.	External
2150MB	Atlas 8ms	C104 0004	$639	C104 0054	$699
4280MB	Atlas 8ms	C104 0005	$899	C104 0055	$959

ANUBIS IS THE FASTEST, MOST RELIABLE SCSI FORMATTING UTILITY FOR THE MAC. ANUBIS ANTICIPATES POSSIBLE PROBLEMS AND CORRECTS THEM ON THE FLY, PROTECTING YOU FROM DISASTROUS DISK CRASHES AND OTHER UNANTICIPATED ERRORS.

1280MB	Fireball IDE	C104 0012	$229
1700MB	Sirocco IDE	C104 0009	$289
2550MB	Sirocco IDE	C104 0010	$369

Quantum IDE hard drives are compatible with Quadra 630, Performa 5200/5300, and Performa 6200/6300 Series

FAST & WIDE DRIVES

20MB/sec Data Transfer Rate

2150MB	Atlas XP32150SW	C104 0103	$699	C104 0152	$799
4280MB	Atlas XP34300SW	C104 0102	$999	C104 0153	$1099

540MB BLOWOUT

IBM

ClubMac brings you the 540MB Deskstar SCSI drive from IBM. With great performance and a THREE year warranty, this drive is an outstanding value.

$139

- 4500 RPM
- 128K Buffer
- 12ms Access Time

Backed by ClubMac's 30 DAY Money Back Guarantee

Manufacturer's 3 Year Warranty

	Internal	Price	External	Price
540MB	C104 1002	$139	C104 1052	$199

CLUBMAC TAPE BACKUP

ClubMac® Tape Back-Up Drives

C104 0900	ClubMac 2-4GB SCSI QIC MiniCartridge Drive (Cartridge not included)	$459
C104 1300	ClubMac 2.0GB ThunderDAT Drive	$749
C104 1303	ClubMac 4-8GB DDS-2 DAT Drive	$879
C104 1302	ClubMac 4-8GB Performance DAT Drive	$1079
S100 1043	Sony QW3080XLF QIC/WIDE 2-4GB Cartridge	$29
V010 1018	Verbatim 90M 4mm DAT Cartridge 2-4GB	$9

DDS-2 DAT Drive

$879 C104 1301

2 Year Manufacturer's Warranty

Backed by ClubMac's 30 DAY Money Back Guarantee

OPTIMA TECHNOLOGY DeskTape

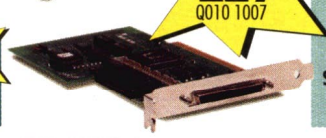
$99* 0029 1002

- Copy your data to a mounted DAT using the Finder
- Interchange your data with any DAT drive
- Store & backup your data incrementally.

* with the purchase of a Tape Drive

FAST & WIDE CONTROLLERS

qlogic Corp.



$229 Q010 1007

PCI CARD BUNDLE

Buy any Fast and Wide Drive and get a QLogic Fast and Wide PCI SCSI Controller for only $229.

FWB incorporated

World Class Storage Solutions

JackHammer Accelerators for PCI & NuBus

$389

Accelerate all internal and external storage devices on your computer! Hard drives, optical, tape, SyQuest, etc. Supports SCSI-1, SCSI-2, Fast SCSI-2, and Fast & Wide SCSI-2. SCSI manager 4.3 features built-in. Flash ROM upgradeable via software. Supports System 7.5 4GB volume size. Requires a full size NuBus slot or a PCI slot.

F094 1033	SCSI JackHammer PCI	$389
F094 1002	SCSI JackHammer NuBus	$459

CLUBMAC CD-ROM DRIVES

ClubMac® 4.4X

Features:
600KB/sec data transfer
190ms avg access time
Caddy-less design

$149 C104 1700

1 Year Manufacturer's Warranty

Backed by ClubMac's 30 DAY Money Back Guarantee

ClubMac®

		Access Time	Trans Rate	
C104 1750	ClubMac 8X-Speed CD-ROM Drive	140ms	1200k/sec	$269
C104 1700	ClubMac 4.4X-Speed CD-ROM Drive	140ms	600k/sec	$149

NEC

		Access Time	Trans Rate	
N024 5501	MultiSpin 8Xe CD-ROM Reader	130ms	1200k/sec	$449
N024 1070	MultiSpin 4Xc 7 Disc Changer	350ms	600k/sec	$339
N024 1011	MultiSpin 3Xp plus Portable CD-ROM	240ms	500k/sec	$349

CD RECORDABLE DRIVES

YAMAHA® 4X CD Recorder

NEW LOW PRICE

$1299

1 Year Manufacturer's Warranty

Y010 1002 **Yamaha 4X CD Recorder** $1299
w/Toast CD ROM Pro 3.0 CD Mastering software

ClubMac® 2X/4X CD-ROM Recorder

$829

NEW PRODUCT

1 Year Manufacturer's Warranty

C104 1780 **ClubMac 2X/4X CD-ROM Recorder** $829
w/Toast CD ROM Pro 3.0 CD Mastering software

MONITORS/VIDEO

radius

Special Buy! $1999

VideoVision Studio 2.5.1

Record full-screen, full-motion, 60 field-per-second digital video input and output to and from your hard disk. VideoVision Studio delivers unsurpassed real-time hardware-accelerated JPEG compression and decompression of each individual video frame, so you can perform non-linear, frame-accurate digital video editing. VideoVision Studio also digitizes stereo audio simultaneously and stores it with the video for easier input and editing.

Radius VideoVision Studio (R013 1018) $1999

Radius VideoVision Studio for PCI-Based Macintosh (R013 1079) $3899

17" MultiSync XV17+

Large Screen performance at an affordable price

- Perfect entry level business, small office/home office, home education/entertainment
- 17" diagonal flat square display
- 15.6" Viewable image size
- Mac Res: 1024 x 768 NI
- PC Res: 1280 x 1024 NI
- Fine 0.28mm dot pitch
- FullScan capability
- On-Screen Manager

NEC

THREE YEAR WARRANTY

$799

N026 1032

NEC 17" XV17+ (N026 1032) $799

NEC 15" XV15+ (N026 1031) $469

MACINTOSH OS COMPATIBLE CPU's

radius 81/110

100% Mac™/OS - Compatible

100% Radius Quality

- 110 MHz PowerPC 601+ microprocessor with integral floating-point processor, 32K cache, and 256K level 2 cache
- 8MB RAM, expandable to 264MB
- 730MB SCSI internal Hard drive
- Quad-speed internal CD-ROM drive
- 1.4MB high-density floppy drive
- Built-in Ethernet
- Two serial ports for LocalTalk, external modem or other devices
- Three available NuBus slots

Limited Quantities!

Mac OS Compliant

1 Year Manufacturer's Warranty

$1399*

* Monitor Sold Separately
Includes: Mouse and Keyboard.

R012 1005 **Radius 81/110** 110MHZ Power PC 601+, 8MB RAM, 4x CD-ROM $1399*

UMAX® Computer Corporation

1 Year Manufacturer's Warranty

SuperMac S900

150MHz PowerPC

Multi-Processor Upgradeable!

Starting at $3095*

*Monitor sold separately

U012 1001 **Umax SuperMac S900D** $3095*
150MHZ Power PC 604, 16MB RAM, 6.7x CD-ROM

U012 1002 **Umax SuperMac S900L** $3995*
150MHZ Power PC 604, 16MB RAM, 2GB HD, 128 IMS Video Card, 6.7x CD-ROM

PRINTERS

EPSON Stylus COLOR Pro

E047 1019

- Incredible 720 dpi color printing, optimized with special coated paper
- Text print speed up to 3ppm, color 1ppm
- True black laser quality text
- Pantone Matching
- Postscript upgradeable
- Cross-platform compatibility
- TWO Year Limited Warranty

$459

2 YEAR WARRANTY

MACWORLD MW★★★★★

PANTONE CALIBRATED

E047 1019 **Epson Stylus Color Pro Printer** $459

E047 1018 **Epson Stylus Color II Printer** $285

E047 1022 **Epson Stylus Color Pro XL Printer** $1799

HP LaserJet 5MP

HEWLETT PACKARD

$1045

- 600 x 600 dpi laser printing with HP Resolution Enhancement technology plus 120 levels of gray
- 6 ppm print speed, 20-MHz ColdFire processor
- 3MB RAM standard, expandable up to 35MB
- Adobe PostScript Level 2 with 35 scale typefaces
- Ports for sharing and wireless printing
- Two industry-standard parallel ports with auto-switching between ports
- Power Saver with sleep mode

1 Year Manufacturer's Warranty

PostScript®

H047 1030 **HP LaserJet 5MP Printer** $1045

SCANNERS

AGFA Arcus II

$1995 A055 1001

1 Year Manufacturer's Warranty

-$75

$1920*

- Single pass, High speed scanner
- 600 x 1200 dpi resolution
- 36-bit color scanning
- Transparency Module
- Includes: Adobe Photoshop, AGFA FotoLook scanning software Fototune LE for color management

A055 1001 **AGFA Arcus II Desktop Professional Scanner** $1920*

A055 1011 **AGFA StudioScan IIsi** ..... $669‡

*Price after $75.00 instant rebate. ‡Price after $30.00 instant rebate.

EPSON ES1200C Pro

- 600 dpi optical resolution, and up to 4800 dpi (via interpolation)
- 30-bit color scanning
- Pro Package includes: Adobe Photoshop, Scantastic, Kai's PowerTools, SCSI cable

WARRANTY 2

$1179

E045 1003

E045 1003 **ES1200C Pro-MAC Color Scanner Full Package** ... $1179

E045 1007 **ES1200C LE-MAC Color Scanner w/Scantastic** $949

E045 1013 **ES1000C LE-MAC Color Scanner** $735

PERIPHERALS

$298

W010 1028

WACOM ARTZ II 6"x8" GRAPHICS TABLET

Edit images, paint, draw and develop your technique to create stunning art with a new Wacom Graphics tablet!

30 DAY MONEY BACK GUARANTEE

LIFETIME LIMITED WARRANTY

New ClubMac Catalog is now Available! Call 800-258-2622.

Win a complete SuperMac 150MHz System!
ClubMac
The Catalog for Macintosh® Computers and Accessories
Save $100!
On the purchase of ANY ACCESSORY!
BUY THIS Apple Power Macintosh 7200/120 $1749
Get This: $100 OFF Epson Stylus Color Pro $459 -$100= $359
BUY THIS Apple Power Macintosh 7600 $2749
Get This: $100 OFF Syquest EZ 135 $119 -$100= $19
ClubMac Beats All Our Competition With The Lowest Prices In The Industry!
Epson 1200C 36 Bit Scanner $1249 ClubMac Price $1179
US Robotics 28.8 Sportster Fax/Modem $218 ClubMac Price $185
AppleVision 1710 Display $849 ClubMac Price $949
Lowest Memory Prices Ever!
72 Pin SIMMS & 168 Pin DIMMS
$100 OFF with purchase of $500 or more
8MB $99 16MB $199 32MB $399
1MB FREE! $99 $299
800-258-2622
3 OVERNIGHT SHIPPING

HOURS A DAY 24 OPEN 7 DAYS A WEEK

Authorized Catalog Reseller

MODEMS

GLOBAL VILLAGE COMMUNICATION

$169*

5 Year Manufacturer's Warranty

Best-Selling 28.8K fax/modem for Macintosh- Now with complete Internet Solution

Upgradeable to 33.6 Kbps

The TelePort Platinum Internet Edition 28.8 kbps fax/modem now comes with a complete Internet solution -

- **Web browser, e-mail and Internet access software.**
- Includes most-popular Web browser and Internet service access
- Flash ROM upgradeable to upcoming 33.6 Kbps standard (available later this year)
- Award-winning GlobalFax 2.5 software is included
- Voice/fax and Fax/ARA flexible call handling

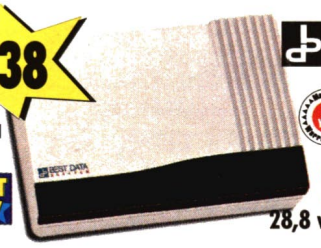
G050 1022 **TelePort Platinum Internet Edition** 28.8 kbps Fax/Modem $169*

*After $30 manufacturer's rebate.

BEST DATA

Merging Multimedia & Communications

$138



5 Year Manufacturer's Warranty

28,800BPS!

BEST BUY

B020 1001

2834FLXMAC

28,8 v.34 External Fax/Modem

Powerlook II

$2295

MANUFACTURER'S 30 DAY MONEY BACK GUARANTEE

1 Year Manufacturer's Warranty

U010 1052

UMAX

The Magic of Color

- 600 dpi
- 36-bit color capture
- Transparency adapter
- Includes Adobe Photoshop 3.0, WordLinx OCR, Kai's PowerTools SE, PowerPhotos CD

U010 1052 **Powerlook II** 36-bit color capture, Transparency adapter $2295

U010 1054 **Vista S12 Mac Pro** 33-bit color capture, 600 x 122 dpi, Full Adobe Photoshop $899

VISIONEER

PaperPort Vx

The Easiest way to get paper into your Mac.

$289

MANUFACTURER'S 30 DAY MONEY BACK GUARANTEE

MACWORLD MW★★★★★

BEST BUY

V029 1008

Sales & Customer Service	24 Hours a Day, 7 Days a Week (800) 258-2622
Inquiries & International Sales	24 Hours, 7 Days a Week (714) 768-8130
Corp., Educ., & Govt. Sales	M - F 5am - 5pm PST (800) 258-2621
Technical Support	M - F 7am - 5pm PST (800) 854-6227
24-Hour Fax	(714) 768-9354

Visit our Web Site at WWW.CLUB-MAC.COM

WARRANTIES: All items manufactured by ClubMac are returned to ClubMac for warranty repair. All other items carry manufacturer's warranty. MONEY BACK GUARANTEE: All products manufactured by ClubMac carry a 30 day money back guarantee. ClubMac extends all other manufacturers' return policies to its customers. Non-ClubMac products carry 30 day money back guarantee when specified. RETURNS: Call for RMA number! Any product that is returned WITHOUT an RMA number will be refused. ALL PRODUCT INFORMATION AND PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE. NOT RESPONSIBLE FOR TYPOGRAPHICAL ERRORS.

DISCOVER NOVUS VISA MasterCard AMERICAN EXPRESS Cards

NO SURCHARGE!

Source Code 65306

ClubMac®

1-800-258-2622

7 Hammond, Irvine CA 92618

1-800-258-2622 1-800-CLUBMAC 1-800-258-2622

ProDirect

Service•Performance•Price... ALWAYS

800-524-9952

Fax 24 hours a day 612-941-1109
International orders call 612-884-0012

MW EDITORS' CHOICE

SPECTACULAR PRICE!

IBM ULTRASTAR ES 2GB ONLY$425

• 8MS SEEK •5400 RPM •512K CACHE BUFFER • 5 YEAR WARRANTY

Internal Configuratio

- VERY RELIABLE 800,000 MTBF
- BEST COST PER MEGABYTE AVAILABLE TODAY
- ADVANCED PRML, MR HEAD TECHNOLOGY

INCRDIBLE AV VALUE!

ULTRA 4GB ONLY$799

Internal Configuratio

•7.5MS SEEK•7200 RPM •512K CACHE BUFFER • 5 YEAR WARRANTY

IBM PATENTED MR HEAD TECHNOLOGY
- ADVANCED READ AHEAD CACHE BUFFER CONTROL
- SUSTAINED SINGLE DRIVE TRANSFERS OVER 5.5 MB/SEC.
- OUR LOWEST PRICE 4 GB EVER (SPECIAL LIMITED TIME OFFER)

AWESOME PERFORMANCE

Quantum ATLAS 1080 ONLY $269

Internal Configuratio

• 8MS SEEK•7200 RPM •1024K CACHE BUFFER • 5 YEAR WARRANTY

- GREAT FOR YOUR DATA INTENSIVE APPLICATIONS
- AV TUNED WITH EMBEDDED SERVO TECHNOLOGY
- 1024 BUFFER PROVIDES FASTER TRANSFER RATES

IBM

2.2 GB *Ultrastar ES* **$455**Int **515**Ext
8.5ms Seek 5400 RPM 1024K Buffer 5 Year Warranty

POWER BOOK DRIVE
810 MB 2.5" *14 MS Seek* $575External

90 Day Performance Guarantee on all PDI Hard Drives.

LEGENDARY PERFORMANCE!

- *INDUSTRY LEADING IBM PATENTED MR HEADS*
- *IDEAL FOR YOUR MOST INTENSE AV OR DTP*
- *1,000,000 MTBF (Mean Time Between Failure)*
- *5 YEAR WARRANTY, 24 HOUR REPLACEMENT*

AWSOME VALUE!

2.2 GB ULTRA XP
•8 ms Seek•7200 RPM
•512KBuffer •5Yr.War.
•MR Head Technology
All drives come preformatted with FWB for Maximum performance in AV and DTP environments.
$485 Int $545 Ext

4.2 GB ULTRA XP
•8 ms Seek•7200 RPM
•512KBuffer •5Yr.War.
•MR Head Technology
All drives come preformatted with FWB for Maximum performance in AV and DTP environments.
$795 Int $895 Ext

FWB

• ALL DRIVES COME PREFORMATTED AND PACKAGED WITH THE AWARD WINNING FWB TOOLKIT

MICROPOLIS

AV Tuned Drives Best for Direct to Disk Recording Performance

2.1 GB 8.5 ms Seek	M4221AV	7200 RPM	$595 512K Buffer	$655 5 Year Warranty
4.3 GB 8.5 ms Seek	M3243AV	7200 RPM	935 512K Buffer	995 5 Year Warranty
9.0 GB 11 ms Seek	M1991AV	7200 RPM	1795 512K Buffer	1895 5 Year Warranty

Wide AV Drives

2.1 GB 8.5 ms Seek	M4221WAV	7200 RPM	$675 512K Buffer	$775 5 Year Warrantyu
4.3 GB 8.5 ms Seek	M3243WAV	7200 RPM	1020 512K Buffer	1080 5 Year Warranty
9.0 GB 11ms Seek	M1991WAV	7200 RPM	1895 512K Buffer	1995 5 Year Warranty

AV Drive Special
9 GB 1991AV **$1795** Internal

BARRACUDA Seagate

1080 GB Hawk 2 XL *Ultra SCSI* *11 ms Seek*	5400 RPM	512KBuffer	$389	$330 5 Year Warranty
1080 GB ST51080N *11 ms Seek*	5400 RPM	512 KBuffer	245	305 5 Year Warranty
2. 4 GB ST32155 *Ultra SCSI* *9 ms Seek*	5400 RPM	512K Buffer	535	595 5 Year Warranty
2.5 GB Barracuda 2 *8 ms Seek*	7200 RPM	512K Buffer	695	755 5Year Warranty
4.3 GB Barracuda 4 *8 ms Seek*	7200 RPM	1024K Buffer	1025	1085 5 Year Warranty
2.5 GB Fast & Wide Barracuda *8 ms Seek*	7200 RPM	512 KBuffer	735	835 5 Year Warranty
4.3 GB Fast & Wide Barracuda *8 ms Seek*	7200 RPM	1024K Buffer	1095	1195 5 Year Warranty
9.0 GB Elite *11 ms Seek*	5400 RPM	1024 Buffer	1845	1945 5 Year Warranty
9.0 GB Elite Fast & Wide *11 ms Seek*	5400 RPM	1024 Buffer	1975	2075 5 Year Warranty

CONNER

2.1 GB 8 ms Seek	C2107S	7200 RPM	645 512K Buffer	705 5Year Warranty
4.3 GB	C4207		855	915

Quantum

	Internal	External
270 MB *14 ms Seek* 4500 RPM	$110 128K Buffer	$170 2 Year Warranty
535 MB *Performance !* *9 ms Seek* 5400 RPM	155 512K Buffer	215 5 Year Warranty
850 MB *Value!* *14 ms Seek* 4500 RPM	185 128K Buffer	245 3 Year Warranty
1080 MB Atlas *8ms Seek* 5400 RPM	269 128K Buffer	329 5 Year Warranty
1280 MB *Fireball II* *10ms Seek* 5400 RPM	255 128K Buffer	315 5 Year Warranty
2.2 GB Saturn *8.5ms Seek* 5400 RPM	445 512K Buffer	505 5 Year Warranty
2.0 GB Atlas *8ms Seek* 7200 RPM	595 1024K Buffer	655 5 Year Warranty
4200 MB Grand Prix *8.6 ms Seek* 7200 RPM	875 512K Buffer	935 5 Year Warranty
4.3 GB Atlas *7.9ms Seek* 7200 RPM	875 2048K Buffer	935 5 Year Warranty

Fast & Wide SCSI AV Drives

2.0 GB Atlas *8ms Seek* 7200 RPM	699 1024K Buffer	799 5 Year Warranty
4.3 GB ATLAS *7.9ms Seek* 7200 RPM	935 2048K Buffer	1035 5 Year Warranty

MAXIMIZE YOUR TRANSFER RATE

PDI POWERRAIDS™

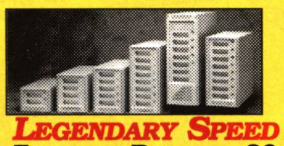
BLINDING SPEED

Our Exclusive 90 Day Performance guarantee.

5 YEAR WARRANTY
48 HOUR REPLACEMENT

STACKABLE

TOWER CONFIGURATIONS



•2GB	$1285
•4GB	$1995
•8GB	$2596
•16GB	$5387
•24GB	$7185

LEGENDARY SPEED
TRANSFER RATES TO 30 MB/SEC.

Includes: FWB Accelerator, FWB Raid toolkit and all cables. All Raids are tested preconfigured for your system requirements.

ATTO SCSI Accelerators

ATTO Express PCI *Ultra SCSI* $345
Single channel RISC based PCI to Fast/Wide SCSI 3 accelerator card for Apple's PCI based computers.

ATTO Dual Channel Express PCI *Ultra SCSI* $595
Dual channel RISC based PCI to Fast/Wide SCSI 3 accelerator card for Apple's PCI based computers. Transfer up to 40 MB/Sec.

ATTO Silicon Express 2 $425
SCSI 1 & 2 support, transfer rates up to 10.0 MB/sec.,supports multiple block sizes,takes advantage of parallel processing capability.Ideal for graphic design, multimedia applications and More!

ATTO Silicon Express 4F $795
Fast/Wide 16 BIT SCSI 2 accelerator card for Apple's Nubus based computers.

FWB SCSI Accelerators

FWB JackHammer $445
Fast/Wide 16BIT SCSI 2 accelerator card for Apple's Nubus based computers. Supports fast/wide SCSI 2 (16 Bit) transfer rates up to 20MB/sec. and fast SCSI 2 (8 Bit) transfer rates up to 10 MB/sec. Full 16 Bit wide support for the latest drives and disk arrays.

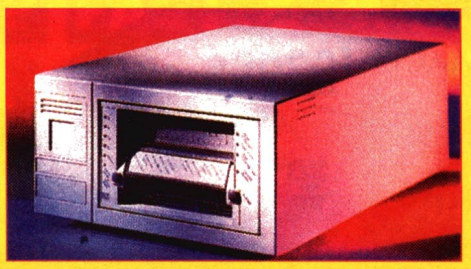
FWB PCI JackHammer $385
Single channel RISC based PCI to Fast/Wide SCSI 3 accelerator card for Apple's PCI based computers. Ideal solution for your audio, video, prepress, and real time applications. Transfer rates up to 20MB/sec.Formatting software included.5 year warranty. Call for Disk

DIGITAL TAPE BACKUP

Quantum DIGITAL LINEAR TAPE

SPEED & VALUE
DLT2000XT 30GB
Transfers 150 Per Minute
Only$2575

MASSIVE STORAGE
DLT4000 40GB
Transfers 180/Minute
Only$3615



4GB Conner TRAVANQIC™ Only **$485**Ext.

8GB Conner DAT DDS-2,SCSI2 , *60MB/min.*, **$875**

8GB DAT Hewlett Packard DDS-2 C1533 SCSI2 , *60MB/min.*, **$1065**

8 GB DAT Sony 7000 SCSI2 , *90 MB Per Minute* **$1295**

24-48GB Hewlett Packard Auto Tape Loader *HP1553, 60MB/min., 4mm media* **$2995**

Exabyte

Capacity	Model	Media	Int.	Ext.
2-5 GB	8205XL	8mm	$1395	$1485
14 GB	8700	8mm	$1419	$1479

CDROM & WRITER

Toshiba 6x CD ROM **$289**
102 MS seek256 K Cache
Toshiba 4x CD ROM **$189**
140 MS Seek
Pioneer 4x 6 Disk Changer **$375**
140 MS Seek
Ultra **8x** 4x CD ROM **$295**
110 MS Seek

Panasonic PD 4 x/650MB **$489**
4 x CD ROM & 650MB Optical Drive in one!
Yamaha 4x CD Writer/ROM CDE100 1024KBuffer•Multisession **$1205**
Pioneer 4x CD Writer/ROM DWS114X •1024KBuffer•Multisession **$1225**
Pinnacle RCD 5040 2 x CD Writer 2x Writer 4x CD ROM 1MB Cache **$1099**
Pinnacle Vertex 2.6**GB Optical** 17 MS Seek, 1024K Cache, ISO/ANSI Standard **$1279**

All CD Writers come complete with 1 piece of media and Toast Pro software.

MEMORY

LIFE TIME WARRANTY

STANDARD 30 PIN

4 MB 70/NS	$47
8 MB 70/NS	$265

72 PIN MEMORY

4 MB 70/60 NS	$29/42
8 MB 70/60 NS	$64/79
16 MB 70/60 NS	$134/147
32 MB 70/60NS	$249/253

168 PIN DIMMS

8 MB	60/NS	$79
16 MB	60/NS	$139
32 MB	60/NS	$279
64 MB	60/NS	$579

POWERBOOK MEMORY

CAPACITY	PB500	DUODOCK	PB5300
4MB	$95	$155	
8MB	$165	$255	$143
16MB	$328		$285
24MB	$522		$522
32MB	$599		$599
40MB			$CALL
48MB			$CALL

REMOVABLES

SyQuest

Capacity	
44 MB	$38
88 MB	42
135 MB	19
200 MB	66
270 MB	54
135 MB	17
230 MB	28

Capacity	Model	External
88 MB	SQ5110C	$295
135MB	SQEZ135	195
200 MB	SQ5200	325
270 MB	SQ3270	295

iomega

1.0GB iomega Jaz Drive Includes 1 Free Cartridge	$595
100 MB iomega Zip Drive Includes 1 Free Cartridge	$195
Jaz Cartridges	$97
Zip Cartridges	$16

M-F 8 a.m. - 7 p.m. *10:00 am- 3:00 pm Saturday*

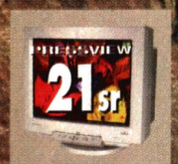
All prices are subject to change without notice. Returned orders are subject to a restocking fee. International customers pay all shipping charges. All shipping charges are non-refundable. To return merchandise call for an RMA number. All RMAs must be returned within 10 business days of issuance. Customers are responsible for shipping charges to return product.

•NEVER A SURCHARGE!•
***NO SALES TAX!**
• SAME DAY SHIPPING !
• TOLL FREE TECHNICAL SUPPORT!

ProDirect, Inc. 10830 Nesbitt Ave South, Bloomington, MN 55437

Quantities are Limited... Supplies Won't Last... SUPERMAC RASTEROPS

AWARD WINNING PRODUCTS AT OR BELOW DEALER COST!



DISPLAYS

TWENTY ONE INCH DISPLAYS

21 Inch DiamondTron Monitor from **$1999***
- Rated Superior to Trinitron
- Two year Mfr's Warranty
- Largest Aperture Grille monitor available
- Up to 1600x1200 on Macs and PCs
- Full Digital Control from Keyboard

Radius SuperMatch 21 TXL	from $1699*
Radius PrecisionView 21	$CALL
Radius PressView 21sr	from $2899*
SuperMac PressView 21 "Editors Choice"	$1999*

$1499* Compare at $2399 — **Radius PrecisionColor Display 21**
- 1600x1200 to 1024x768
- Razor sharp dot pitch
- Best for color accuracy
- Selectable color temperatures

RasterOps SuperScan MC 21	$CALL
Radius Multiview 21	$CALL
Radius 21 inch Grayscale Display	$799

*With qualifying videocard, accelerator, or computer purchase

TWENTY INCH DISPLAYS

TRINITRON BLOWOUT-LOWEST PRICE EVER!
While Supplies Last!

$999* **20" Trinitron Display** (Mac or PC Ready)
- Manufactured by Sony
- Industrial Grade Trinitron CRT

SuperMac SuperMatch 20 Plus	$999*
Radius PrecisionColor 20v	$1099*
Digital 20 inch Display Up to 1280x1024	$1399
RasterOps 20 Multimode	$1299
Radius PrecisionColor 19	$899*

$1499* Retail $2399 — **Radius IntelliColor Display 20**
- MacUser, MacWorld, MacWeek Editor's Choice
- 1600x1200 to 640x400

Apple Multiple Scan 20 Display	$CALL
Ikegami 20 inch Grayscale Display	$699
Radius 20 inch Grayscale Display	$699

*With qualifying videocard, accelerator, or computer purchase

SEVENTEEN INCH DISPLAYS

$599* Compare at $1299 — **SuperMac/E-Machines T16IIMR**
- High Grade Studio Trinitron Series
- .25mm multi-resolution
- Editors Choice
- 1024x768 to 640x480 resolutions

SuperMatch 17T	$799*
PrecisionColor Display 17	from $899
PrecisionView 17	$CALL
Radius PressView 17sr	$CALL
SuperMac SuperMatch 17	from $499*

*With qualifying videocard, accelerator, or computer purchase

PORTRAIT DISPLAYS

$399* **Radius Color Pivot LE**
We have cards for SE/30, LC, IIsi Nubus, and Quadras
* With purchase of video card.

PrecisionColor Pivot	$599
Grayscale Pivot	$399
Radius Full Page Display	$CALL
Apple Portrait Display	$399
Portrait Display Labs 1700	$CALL
E-machines ColorPage 15 with NUBUS card	$499

COLOR CALIBRATORS

SuperMac Display Calibrator	only $199
SuperMac Display Calibrator PRO	$499
Radius Mac ProSense Calibrator	$799

VIDEO CARDS

1600x1200 PCI & NUBUS

IMS Twin Turbo 128M ♦♦♦♦ MacWEEK from **$399**
- 1600 x 1200 to 640 x 480 resolutions
- MPEG video playback
- 128-bit wide architecture
- Interleaved VRAM

Radius Thunder IV GX 1152	*BELOW COST
Radius Thunder II GX 1360 & 1600	from $799
Radius Thunder IV GX 1360 & 1600	from $999
Radius Thunder 24/GT (accepts PhotoEngine)	$CALL
Radius ThunderColor 30/1152 & 1600	$CALL
Radius PrecisionColor 8/1600	$499
EA Research EAsycolor 1600/16	$CALL

21" RESOLUTIONS

Radius PrecisionColor 24X	$599
Thunder 8 "Fastest 8 bit card ever"	$CALL
Thunder 24 (DSP available)	$CALL
Radius LeMans GT	$799
SuperMac Ultura LX*	$799
RasterOps Horizon 24*	$899
RasterOps 24XLTV	$1999
RasterOps Prism GT	$CALL
Radius PrecisionColor 8XJ	$499

*DSP Available

20/19" RESOLUTIONS

SuperMac Spectrum 24 Series V	$599
Radius PrecisionColor Pro 24XK	$CALL
SuperMac Futura MX	$499
RasterOps PaintBoard Lightning	$CALL
SuperMac Spectrum 8	$199
PowerView/SuperView for Powerbooks	$199/$299

17/16" RESOLUTIONS

Radius 24 bit video cards	from $199
Radius PrecisionColor Pro 24XP	$CALL
SuperMac Futura SX	$299
RasterOps 24 MX	$399

PHOTOSHOP ACCELERATION

Radius PhotoEngine from **$399***
- Four AT&T 3210 66MHz DSPs
- Accelerates Photoshop Filters
- Up to 15x acceleration on all Macs
- MacUser Editor's Choice
- Available in Daughtercard or NUBUS versions

Adaptive Soloutions PowerShop	$CALL
Radius Photo Booster for Quadra/PDS or Rockets	from $199
SuperMac DSP daughter cards for Thunder/Ulturas	$299

Standard video cards do not provide acceleration for many critical Photoshop functions, because they do not have on-board Digital Signal Processors (DSPs). When installed in your system, DSPs are used by Photoshop to process time consuming commands more than 10-times faster than built-in video.

Greatest Improvement Areas:
- Filters such as those in the Sharpen and Blur submenus
- Mode conversions such as RGB to CMYK color separations
- Image transformations: rotations, effects, and resizes.

Stop wasting valuable time: Imagine using filters that normally take twenty minutes to process finishing in only two to four minutes! How much additional time would you save in just one week? You can't afford to be without DSPs.

CPU SPECIALS

POWER MACS

All PCI PowerMacs Available -- CALL for Lowest Prices Ever!!

PowerMac 8500/120, 132 & 150MHz	from $2799
PowerMac 9500/120, 132 & 150MHz	from $2999
PowerMac 7500/100 & 7600/120	from $1999
PowerMac 7200/90 & 120MHz	REDUCED!

Prices with Income or Purchase

Save up to $500 on Complete System Purchase!!

PowerMac Performa 6200 8/1000/CD — $999
- Power PC 603/75MHz RISC processor
- Internal 14.4kbps modem & 4x CD-ROM drive

PowerMac Performa 5200CD — $1199
- Integrated 15" Display & 4x CD-ROM drive
- Power PC 603/75MHz RISC processor

Power Macintosh 7100/80 8/700/CD — from $1299*
- 80MHz PPC 601 RISC processor
- AV upgrade supports full motion video

*CPU only, with Qualifying Card or Monitor Purchase

QUADRA/MAC II SERIES

Quadra / Centris 610 8/80/CD	only $699
Quadra 700 8/80	$799
Quadra 800 8/250/CD NEW	$IN STOCK
Quadra 840AV 8/250/CD w/ Spigot Power AV	$1999
Quadra 950 8/500	$1399

Mac IIsi Color Pivot System — CPU only $299
- Macintosh IIsi with 5MB RAM/80MB HD
- Radius Color Pivot Display
- Extended 105-key Keyboard
- FREE ClarisWorks!

Complete system $799

Add Radius Card for Display to TV	only $199
Add Apple Cache Card to Macintosh IIci	$39

DIGITAL VIDEO

SpigotPro AV — $999*
- Upgrade for Nubus AV Macs
- 24bit Full-Screen, Full-Motion Video
- Includes Adobe Premiere
- *with purchase of Studio Array

Video Vision Studio 2.5.1 — $1999*
- 24bit Full-Screen, Full-Motion Video
- Includes Adobe Premiere and VideoFusion
- Breakout bar supports dual input
- *with purchase of Studio Array

Video Vision Telecast — from $2999
- Full-motion, broadcast-quality video
- Available as upgrade for Video Vision Users

Video Vision Studio Array — $1999
- 4GB RAID Customized for Video Vision
- Includes Fast & Wide SCSI-2 accelerator board
- Chain up to three Arrays together (4GB,8GB,12GB)

miroMOTION DC20 M-JPEG PCI video capture & playback	$CALL
ATTO Silicon Express IV 20MB/sec SCSI accelerator	$599
Truevision Targa 1000 & 2000 PCI/NUBUS	$CALL
RasterOps 24XLTV	$1999
RasterOps MoviePak II JPEG Daughtercard Upgrade	$CALL
Spigot II Tape Now Bundled with Adobe Premiere	$499
VideoSpigot Cards Nubus/LC/IIsi	from $99*
Radius Spigot Power AV	$799

*With purchase of Adobe Premiere

The LLB Company, Inc.

1-800-848-8967

International: 206.746.0229 **WEB SITE: HTTP://llb.com** **Fax: 206.746.5168**

MEMORY

Standard 30-pin SIMMs

1MB 100/80/70NS	$26/22/33
2MB 80/70NS	37/40
4MB 80/70NS	49/55
8MB 70NS	179
16MB 70NS	335

30-pin, 9 bit PC SIMMS

1MB 70NS	$30
4MB 70NS	130

72-pin SIMMs

4MB 70/60NS	$31/44
8MB 70/60NS	67/70
16MB 70/60NS	137/142
32MB 60NS	290

72-pin, 9 bit PC SIMMS

4MB 70NS/60NS EDO	$69/75
8MB 70NS/60NS EDO	189/150
16MB 70NS/60NS EDO	300/259
32MB 70NS/60NS EDO	675/636

PB 5300 Series

8MB/12MB RAM	$149/270
16MB/32MB RAM	289/610

PB 190 Series

4MB/8MB 70NS	$95/149
12MB/16MB 70NS	205/245
32MB70NS	425

PB500 Series

4MB/8MB RAM	$99/172
16MB/32MB RAM	332/605

8MB 72PIN $67

4MB PAL SIMMs for II,IIx

4MB 70NS	$129

64-pin SIMMs for IIfx

1MB 80/70NS	$26/43
4MB 80/70NS	155/155
8MB 70NS	305
16MB 70NS	520

168-pin DIMMs

4MB 60NS	$125
8MB 60NS	87
16MB 60NS	148
32MB 60NS	285
64MB 60NS	645

PBDUO 210/230 Series

PB DUO-4MB	$159
PB DUO-8MB	260
PB DUO-12MB	445
PB DUO-14MB	455
PB DUO-20MB	698
PB DUO-28MB	899

What type of Memory do I need?

Standard 30-Pin Simms:
Plus, SE, SE 30, Classic, Classic II, Color Classic, LC, LCII, Performa 200, Performa 400-430, Performa 600, Quadra 900/950, Mac II, IIx, IIcx, IIsi, IIci, IIfx, IIvx, IIvi.

Standard 72-Pin Simms:
Quadra 605/630, 610, 650, 700, 800/840AV, LCIII, LC475, LC630, Performa 450-560, 575 and 6115CD, PowerMac 6100, 7100, 8100, WS 80, WS60, WS 95, WS 6150 and WS 8150, 9150.

168 Pin Dimms:
PowerMac 9500, 8500, 7500, 7200

MODEMS

GLOBAL VILLAGE

Teleport Platinum 28.8 V.34	$205
PowerPort 1XX Platinum 28.8 V.34	339
PowerPort Platinum PC Card 28.8	349
PowerPort Platinum PRO PC Card	519

SUPRA

SUPRA Simple Internet 28.8 Ext.	$159
SUPRA 28.8 V.34	207
SUPRA 28.8 PB FAX Modem	189
SUPRA EXPRESS 144 PLUS	99
SUPRA EXPRESS 288 External V.34	159

US ROBOTICS

28.8 Sportster V.34 Internet Bundle	$199
Sportster14,400 Mac & Fax	119
28.8 V.34 PCMCIA Sportster	291

TDK

28.8 V.34 PCMCIA PB190/5300	$259
Global Class 288 V.34 PCMCIA	355

Motorola

Lifestyle 28.8 V.34	$212
Power 28.8 V.34	270
ISDN Bitsurfer PRO	369

MEGAHERTZ

Cruise Card 14.4 PCI	$135
Cruise Card 28.8	295
Cruise Card 14.4	159

PRINTERS

APPLE

Color Stylewriter 2500	$375
Laserwriter 4/600	895
Personal Laserwriter 320	809

HEWLETT PACKARD

HP LaserJet 4MV	$2840
HP LaserJet 5P Plus	888
HP LaserJet 5si	2860
HP DeskWriter 660C	399

We also carry HP and Apple Printer supplies

EPSON

STYLUS COLOR 1500 PRINTER	$995
STYLUS COLOR PRO XL PRINTER	1749

DRIVES

APPLE

1.2GB	449	850MB	339
		2GIG	799

QUANTUM (EXTERNAL)

1.2GB Ext. Fireball $359	850MB Ext. Trailblazer 279
Atlas 4.3 GB	1079

200MB SyQuest w/Cart	$479
270MB SyQuest w/Cart	479

NEC

6XE Multi-Spin CD-ROM Drive	$519
4XC 7CD Changer	369

2X CD Recorder/Writer	$1375
4X CD Recorder/Writer	1999

FWB Incorporated

SyQuest

EZ135 W/Cartridge $187

Iomega Zip Drive	$199
Jaz 1.0GB Drive Ext/Int	599/549

PINNACLE MICRO THE OPTICAL STORAGE COMPANY

RCD1000 w/10 Recordable CD's	$1295
RCD5020 Ext. CD Recorder	1265
APEX 4.6GB Optical Drive	1589

MEDIA

Verbatim - *Call for current prices on the full line of Verbatim*

DataLife 4mm/8mm Data Cartridges	
8mm, DL 112 Meters 2.5/5.0GB	$7
4mm, DL 60 Meters DDS-MRS 1.3GB	7.50
4mm, DL 90 Meters DDS-MRS 2.0GB	9.50

Iomega ZIP Cartridge 100MB	$19
- 3pack/10 Pack	49.50/139
Iomega Jaz 1GB Cartridge/5 Pack	123/490
Iomega Jaz 540MB Cartridge/5 Pack	69/294

SyQuest

EZ135	$19.50
- 5 Pack	96.25
- 10 Pack	190.00

The Original SyQuest Cartridge

	1-4	5-9	10+
44MB 5.25"	$40	$39	$38
88MB 5.25"	$43	$42	$41
200MB 5.25"	$63		$62
270MB 3.5"	$49	$48	$47
105MB 3.5"	$55		$54

FPUs/CoProcessors VRAM/Accelerators

FPU's/Math CoProcessors

Centris FPU 25MHz	$189
FPU 33MHZ DUO/P600	52
FPU Color Classic 16MHZ	44
FPU LCIII 25 MHZ/FPU LC,LCII 16 MHZ	49/49
LC575 33MHZ Math CoProc.	240

VRAM/CACHE

256K 80NS Video RAM	$17
512K Video RAM	22
1MB Video RAM PM72/75/8500	55
2MB Video RAM PM 9500	225
256K/512K/1MB Cache Card	72/282/569
256K Cache Dimm /512K Cache Dimm	87/155
1MB Cache Dimm	269

DAYSTAR ACCELERATORS

Turbo 040 40MHZ w/cache	$679
PowerCard 601 66mhz	649
PowerPro 601 100MHZ w/cache	1240
Turbo 601 100 MHZ w/adapter	1175
PowerCard 601 100MHZ	959

SCANNERS

EPSON	1200C PRO	$1202
VISIONEER	PaperPortVX for Mac	295
Nikon ELECTRONIC IMAGING	CoolScan II External	1349
	Super CoolScan	1999
AGFA	StudioScan IISI	935
	ARCUS II	1941
POLAROID	SPRINTSCAN	1555

UMAX

POWERLOOK II	$1988
VISTA S-12 PRO+	908
VISTA S-12 LE+	808
VISTA S-6 E+ PRO/LE	508/608

SyQuest®

EZ135 Drive

$187

Single Cart. $19.50
Five-Pack $96.25
Ten-Pack $190.00

QUANTUM

Internal Drives

850MB TRAILBLAZER .. 219
1.2 GB FIREBALL $299
4.3GB ATLAS 999

POWERBOOK ACCESSORIES

VST PB190/5300 BTRY NIMH	163
VST PB190/5300 BTRY/CHRGER 5000	299
VST PB5300 POWER ADAPTER AC/DC	229
SUPERCHARGER PB5300	95
MINI AC ADAPTER PB5300	69
APPLE AC ADAPTER PB 5300	59

UMAX®

Powerlook II

$1988

FREE CATALOG! 1.800.848.8967

Electronic orders: Compuserve @ 73423.1272 @Compuserve.com

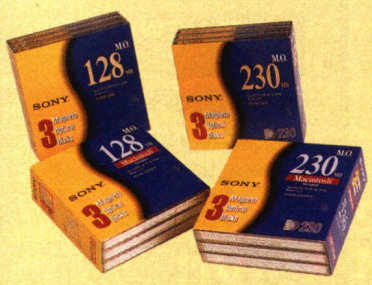
- P.O.'s accepted upon approval
- All major credit cards accepted - No surcharge - when shipped
- Prices subject to change, not responsible for errors
- We export to most countries in the world
- Orders received before 8:00 pm EST weekdays shipped same day
- Open 6am to 7pm M-F. 9am to 4pm Saturdays
- Returns subject to a 15% restocking fee

E-Mail us!

The LLB Company, Inc. 13228 NE 20th St., Suite B, Bellevue, WA 98005

WK072296

AIRBORNE EXPRESS OVERNIGHT $7.00 up to 10lbs



SUPER SONY SAVINGS

BUY SONY OPTICAL 3 - PACKS!

3-PACK OPTICALS

SO 3EDM128B	128MB 3.5 3-Pk	$44.00
SO 3EDM128MFB..	128MB 3.5 3-Pk Mac Format	50.00
SO 3EDM230MB.	230MB 3.5 3-Pk Optical	55.00
SO 3EDM230MFB..	230MB 3.5 3-Pk Mac Format	60.00

SINGLE OPTICALS

SO EMD128A	128MB 3.5 Optical	16.00 ea
SO EDM128MFA...	128MB 3.5 Optical Mac Format	18.00 ea
SO EDM230.....	230MB Rewritable MO Disk	20.00 ea
SO EDM230M	230MB Mac Formatted MO Disk .	22.00 ea
SO EDMIDAIS	600MB/512 Optical Cartridge	52.00 ea
SO EDMIDAOS	650MB/1024 Optical Cartridge	52.00 ea
SO EDM1301.....	1.2GB/5`12 Optical Cartridge.....	59.00 ea
SO EDMI300	1.3GB/1024 Optical Cartridge	59.00 ea
SO EDM2300B	2.3GB Optical Cartridge 512 B/S.....	86.00 ea
SO EDM2600B	2.6GB Optical Cartridge 1024 B/S ...	86.00 ea

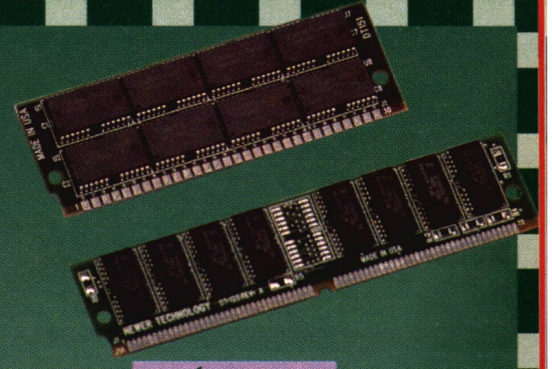
Call For Current Pricing on the Full Line of SONY Media Products.

MORE SONY® VALUES

ZIP (SONY) Cartridges
SO ZIP 100CFM
$17.00 ea.

CD Recordables
SO CDQ 74SZA
$8/single $73/10 pk

NEWER HABITAT



NUPOWR

Newer™ TECHNOLOGY

POWER PC UPGRADE FOR PB500!

PB 500 117MHZ 0MB	$615
PB 500 117MHZ 4MB	799
PB 500 117MHZ 8MB	989

PC CARD

PC CARD DRIVE	$322
PC CARD ETHERTECH P10	145
PC CARD 10 MB FLASH MEMORY.....	425
PC CARD 20 MB FLASH MEMORY.....	705
PC CARD 30 MB FLASH MEMORY.....	1019
PC CARD 28.8 FAX MODEM	340

MEMORY

8MB 72PIN 70NS SIMM $129

4MB 64 BIT 70NS DIMM . . .	$145
8MB 64BIT 70NS DIMM. . . .	159
16MB 64 BIT 70NS DIMM . .	355
32MB 64BIT 70NS SIMM	.629
64MB 64BIT 70NS DIMM	1719

MICRODOCK

NEWER 16SC ULTRADOCK	$429
NEWER 16SCE ULTRADOCK W/ENET	485
COLOR MICRODOCK	242
ETHERNET MICRODOCK	173
FLOPPY MICRODOCK	92
SCSI MICRODOCK.....	138
FLOPPY DRIVE.....	119
FLOPPY DRIVE/MICRODOCK BUNDLE...	199

VRAM/CACHE

POWERCLIP/256K CACHE BUNDLE $155

POWERMAC 1MB CACHE ..	$569
POWERMAC 512K CACHE ...	275
POWERMAC CACHE.....	142
CACHE 256K DIMM/1MB .	132/269
1MB VRAM 7200/7500/8500	92
2MB VRAM 9500	225

For all your quality Newer Technology products, call Newer Habitat

1.800.840.2212

FAX: 206.746.5168

WK072296

Visit our Web Page at http://www.directtech.com

DIRECTTech SYSTEMS INC.

CALL: 1-800-279-5520

MORE BYTES FOR YOUR BUCK! FROM YOUR #1 STORAGE VENDOR

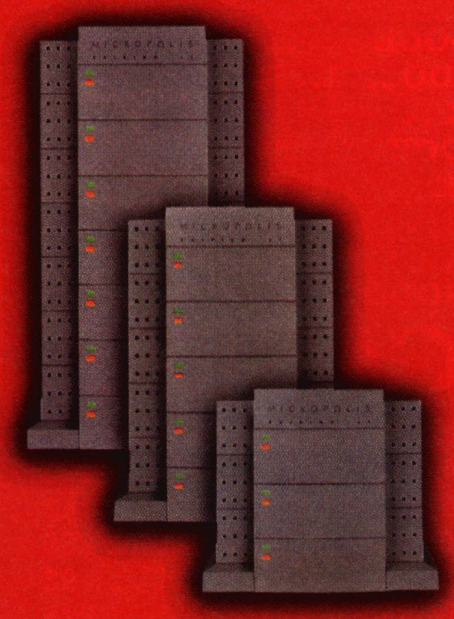
Seagate

WEEKLY SPECIAL!

1 GB INTERNAL!

269.00

*1.0 Gb Usable Storage
*Internal Configuration
*Seagate Quality
*5400 RPM



Stream Logic

THE STACKABLE, REMOVABLE DRIVE SUBSYSTEM

Model #	Capacity
MDLT2100/AV	2.1 GB
MDLT4300/AV	4.3GB
MDLS9100/AV	9.1GB

NOW AVAILABLE IN FAST/WIDE CONFIGURATION.
ASK ABOUT THE MICRODISK RAID 5 ARRAY!

CALL FOR LATEST PRICING AND CONFIGURATION.

HARD DRIVES

ALL DRIVES ARE PREFORMATTED, TESTED AND PACKAGED WITH SCSI MANAGER 4.3 COMPATIBLE DRIVERS. EXTERNAL DRIVES INCLUDE CHOICE OF 25-50 OR 50-50 PIN CABLE.

Capacity	Model No.	Mechanism	Seek	Warranty	Internal	PHASER-I
840 MB	DT-840	Quantum	11.0 ms	3 yrs	$199	$275
1.05 GB	DT-51080	Seagate NEW LOW PRICE!	10.0 ms	3 yrs	$269	$344
1.0 GB	DT-1080FB	Quantum	11ms	3 yrs	$269	$344
1.05 GB	DT-31230	Seagate NEW LOW PRICE!	9.0 ms	5 yrs	$380	$455
2.0 GB	DT-32107	Conner NEW PRODUCT!	8.0 ms	5 yrs	$625	$699
2.0 GB	DT-4221	Micropolis	8.0 ms	5 yrs	$599	$675
2.1 GB	DT-32550	Seagate Barracuda II NEW LOW PRICE!	8.0 ms	5 yrs	$725	$800
4.3 GB	DT-14207	Conner NEW PRODUCT!	8.0 ms	5 yrs	$950	$1,025
4.3 GB	DT-3243	Micropolis NEW LOW PRICE!	8.5 ms	5 yrs	$975	$1,050
4.3 GB	DT-15230	Seagate Hawk 4 NEW PRODUCT!	9.0 ms	5 yrs	$899	$975
4.3 GB	DT-15150	Seagate Barracuda NEW LOW PRICE!	8.0 ms	5 yrs	$1,075	$1,175
9.0 GB	DT-1991	Micropolis NEW LOW PRICE!	12 ms	5 yrs	$1,950	$2,050
9.0 GB	DT-410800	Seagate Elite 9 NEW LOW PRICE!	11 ms	5 yrs	$1,925	$2,025

AUDIO/VIDEO TUNED DRIVES

DIRECTTECH SYSTEMS IS AN AUTHORIZED A/V PARTNER WITH SEAGATE AND MICROPOLIS.

Capacity	Model No.	Mechanism	Seek	Warranty	Internal	PHASER-I
2.0 GB	DT-4221AV	Micropolis NEW LOW PRICE!	8.5 ms	5 yrs	$650	$725
2.1 GB	DT-32550AV	Seagate Barracuda	8.0 ms	5 yrs	$725	$800
4.3 GB	DT-14207AV	Conner NEW PRODUCT!	8.0 ms	5 yrs	$950	$1,025
4.3 GB	DT-3243AV	Micropolis NEW LOW PRICE!	8.5 ms	5 yrs	$1,050	$1,125
4.3 GB	DT-15150AV	Seagate Barracuda	8.0 ms	5 yrs	$1,125	$1,225
9.0 GB	DT-1991AV	Micropolis NEW LOW PRICE!	12 ms	5 yrs	$2,050	$2,150
9.0 GB	DT-410800AV	Seagate Elite 9 NEW LOW PRICE!	11 ms	5 yrs	$1,975	$2,075

FAST/WIDE SCSI DRIVES

MOST EFFECTIVE WHEN COMBINED WITH A FAST/WIDE ATTO BOARD. CALL FOR SPECIAL CONFIGURATIONS!

Capacity	Model No.	Mechanism	Warranty	Internal	PHASER-I
2.1 GB	DT-32550W	Seagate Barracuda 2LP Wide	5 yrs	$799	$899
2.1 GB	DT-4221W	Micropolis 4221Wide	5 yrs	$699	$799
4.3 GB	DT-15150W	Seagate Barracuda 4 Wide	5 yrs	$1,175	$1,275
4.3 GB	DT-3243W	Micropolis 3243Wide	5 yrs	$1,050	$1,150
9.0 GB	DT-1991W	Micropolis 1991Wide	5 yrs	$2,085	$CALL
9.0 GB	DT-1991AVW	Micropolis 1991AVWide	5 yrs	$2,185	$CALL
9.0 GB	DT-410800W	Seagate Elite 9 Wide	5 yrs	$CALL	$CALL

DISK ARRAYS/RAID

MEDIA 100 * RADIUS * DIGITAL VIDEO * TARGA 2000
ARRAYS INCLUDE - ATTO CARD, REMUS & 2 FAST/WIDE DRIVES

Capacity	Model No.	Mechanism	Seek	Warranty	EXTERNAL
4.0 GB	DT-32550W-2	Seagate - Fast/Wide Barracuda 2LP (2)	4.0 ms	5 yrs	$CALL
8.0 GB	DT-3243WAV	Micropolis - Fast/Wide 3243AV (2)	4.0 ms	5 yrs	$CALL
18.0 GB	DT-1991WAV	Micropolis - Fast/Wide 1991AV (2)	4.0 ms	5 yrs	$CALL

CALL FOR MORE INFORMATION ON DIRECTTECH DISK ARRAYS!

ATTO Silicon Express IV	Nubus Fast/Wide Accelerator	$CALL
ATTO Express PCI	Dual Channel - PCI -Fast/Wide	$CALL
ATTO Express PCI	Single Channel - PCI-Fast/Wide	$CALL

SYQUEST

INCLUDES ANUBIS FORMATTING SOFTWARE AND ONE CARTRIDGE

Capacity	Model No.	Internal	PHASER-I
88 MB	SQ5110C	$305	$365
200 MB	SQ5200	$420	$480
270 MB	SQ3270	$420	$470

CD ROM RECORDABLE

JVC Personal Archiver (2X)	$1,165
JVC Personal Archiver (4X)	$1,999
Yamaha CD Recorder (4X)	$1,699

NEW PRICING

TAPE

INCLUDES A FREE COPY OF RETROSPECT AND ONE TAPE

Capacity	Model No.	Format	PHASER-I
2 GB	HP-35470	4mm	$950
4-8 GB	Sony-5000	DDS-2	$999
4-8 GB	HP-1533A	DDS-2	$1,250
5-10 GB	Exabyte-8505	8mm	$2,150
15-30 GB	DLT-2000XT	DLT	$4,399

OPTICAL

INCLUDES ANUBIS FORMATTING SOFTWARE AND ONE CARTRIDGE

Capacity	Model No.	Seek	PHASER-I
230 mb	Fujitsu	30 ms	$675
1.3 GB	HP-C1716	23 ms	$1,999
1.3 GB	Maxoptix T-III	18 ms	$2,199

MEDIA

Type	Price
Syquest 44	$40
Syquest 88	$46
Syquest 105	$54
Syquest 200	$76
Syquest 270	$60
Optical 128 MB	$22
Optical 230 MB	$30
Optical 1.0 GB	$100
Optical 1.3 GB	$90

CALL FOR QUANTITY PRICING!

MICROPOLIS
Seagate
HEWLETT PACKARD
Quantum
SyQuest
JVC

ASK YOUR SALES REP ABOUT DIRECTTECH'S NEW WARP POLICY. (WARRANTY ADVANCED REPLACEMENT PROGRAM)

Directtech now offers Data Recovery Services! Call for Price Quotes.

VISA MasterCard AMERICAN EXPRESS

No charge for Visa, Mastercard or Amex

Government, Corporate, and University P.O.s Welcome!

- 30-day money-back guarantee on all drives.
- Refused orders subject to restocking fee.
- RMA No. required for all returns.

Prices, terms, and availability are subject to change without notice.

All tradenames and trademarks are the property of their respective companies.

INTERNATIONAL ORDERS CALL:
PHONE: (612) 941-2616
FAX ORDERS: (612) 942-0430

NEW OFFICE HOURS!
M-F 8 A.M. - 7 P.M.
SAT 10 A.M. - 2 P.M.

DirectTech Systems, Inc. 7625 Golden Triangle Drive, Suite R Eden Prairie, MN 55344

CALL MACXTRA NOW!
1-800-553-4230

MAC Xtra DISCOUNTS

FAX YOUR ORDER: 206-746-5324

INTERNATIONAL CALLS: 206-746-3803

MAC Xtra DISCOUNTS

PUZZLED BY HOW TO ENERGIZE YOUR MAC?

MEMORY!

LIFETIME WARRANTY

STANDARD 30-PIN SIMMS

FOR PLUS, SE, SE 30, CLASSIC/II/COLOR, LC,/LCII, PERF. 200/400-430/600, Q 900/950, MAC II, IIX, IICX, IISI, IICI, IIFX, IIVX, IIVI.

4MB 80NS $48!

1MB 100NS $24
1MB 80/70NS .. 20/33
2MB 80/70NS ... 36/40
4MB 80NS/70NS ... 48/55 ✔
8MB 70NS 270
16MB 70NS 455

4mb PAL SIMMs for II/IIx
4MB 80NS $134

64-pin SIMMs for IIfx
1MB 80NS $38
4MB 70NS 154
8MB 70NS ..... 303 ✔
16MB 70NS 520

PC SIMMS
1MB 70NS $29
4MB 70NS 99

72-PIN SIMMS

FOR Q 605/630, 610, 650, 700, 800/840AV, LCIII/475/630, PERF. 450-560/575 & 6115CD PMAC 61/71/8100, WS 80/60/95/6150/81/ 9150.

8MB 72-pin 70NS $66!

4MB 70NS/60NS $30/42
8MB 70NS/60NS ...66/70 ✔
16MB 70NS/60NS .. 136/140
32MB 60NS 288

PC SIMMS (72-PIN)
4MB 70NS $87
8MB 70NS 187
16MB 70NS 335
32MB 70NS 979

168-PIN DIMMS

FOR PM 9500, 8500, 7500, 7200

16MB 60NS DIMM $147!

4MB $124
8MB 87
16MB ..... 147 ✔
32MB 285
64MB 643
ALL 60NS!

POWERBOOK SERIES

PB5300
8MB .. $146 12MB .. 268
16MB . 298 ✔ 32MB .. 610

PB2300
4MB .. $129 8MB . 219
16MB... 329 20MB. 459
32MB.. 659 36MB... 599

PB190 SERIES
4MB .... $125 8MB ... 166
12MB .. 205 16MB .. 245
32MB... 425 **ALL 70NS!**

PB500 SERIES
4MB .... $97 **8MB .... 169** ✔
16MB .... 330 32MB ... 603

PB DUO 210/230
4MB $157 8MB 259
12MB 443 14MB 453
20MB 777 28MB 897

FPU'S/MATH COPROCESSOR/ VRAM/CACHE

CENTRIS FPU 25MHZ ... $186
FPU 33MHZ DUO/P600 51
FPU COL. CLASSIC 16MHz .. 42
LC575 33MHz FPU ... 238
LCIII FPU 25 MHz .. 48

POWERMAC 6100, 7100, 8100 VRAM/CACHE

256K 80NS VRAM ... $17
512K VRAM 22
256K CACHE 70
512K CACHE ... 279
1MB CACHE .. 789

POWERMAC 72/75/85/9500 VRAM/CACHE

PowerMac 1MB VRAM $55!

1MB VRAM 72/75/8500 $55
2MB VRAM 9500 ... 227
256K CACHE DIMM ..86
512K CACHE DIMM .. 148

POWERBOOK ACCESSORIES

BATTERIES
VST PB5300 BATTERY, CHARGER, AC ADAPTER $319
VST PB2300 INT. TYPE III 97
VST PB500 INT. BATTERY 125

HARD DRIVES
VST EXP. BAY HARD DRIVE 540/810MB/1.2GB $482/615/769

MODEMS
GLOBAL VILLAGE POWERPORT PLATINUM 28.8 V.34 ..... $337
SUPRA 14.4/28.8 PB MODEM ... 99/159
MEGAHERTZ CRUISE CARD 14.4 135

SCANNERS & PRINTERS

Visioneer
PAPERPORT VX $295

Umax
POWERLOOK I I .. $1988
VISTA S-12 PRO+ .. 908
VISTA S-12 LE+ .. 808
VISTA S-6 E PRO+ ... 608

UMAX PowerLook II $1988!

Nikon
COOLSCAN EXTERNAL ... $1349
SUPER COOLSCAN 1999

Agfa
STUDIOSCAN IISI $795
ARCUS II 1941

Polaroid SPRINTSCAN .. $1555

Apple
COLOR STYLEWRITER 2500 .... $375
LW 4/600 .. 895 PERS. LW 320 .. 809

Hewlett Packard
LASERJET 5L/5P PLUS/5SI .. $515/888/2860
DESKWRITER 660C 359

Epson
STYLUS COLOR PRO XL PRINTER .. $1749
PRO XL BLACK/COLOR CART... 19/35

Printer Supplies
HP DESKJET/WRITER COLOR CART. . $29
HP DESKJET/WRITER BLACK CART . 26.50
HP LASERWRITER 4V/4MV TONER .. 152
HP LASWERWRITER 4/4M TONER .. 116
APPLE LW 12/600 BLACK TONER ... 95
APPLE LW 12/600 COLOR TONER *(CYAN, MAGENTA OR YELLOW)* ... 110 *(EACH)*
APPLE COLOR STYLEWRITER HIGH PERFORMANCE BLACK CART. 29
APPLE COLOR STYLEWRITER 2400 BLACK & COLOR CART. 44

MODEMS

Global Village
TELEPORT PLAT. 28.8 V.34 ..... $203
POWERPORT1XX PLAT.28.8 V.34 337
POWERPORT PLAT. PC CARD 28.8 .. 349
POWERPORT PLAT. PC CARD PRO ... 519

Supra
EXPRESS 28.8 EXT V.34 . 159
14.4 EXPRESS 98
28.8 PB FAX/MODEM ... 159
28.8 V.34 S/R FAX MODEM ... 205

Motorola
ISDN BITSURFER PRO $369

US Robotics
28.8 V.34 INTERNET BUNDLE 199
14.4 SPORTSTER EXT 117

Zoom
2400 BPS ... 65 V.FAST 28.8 ... 189
VFX 14.4 V.32BIS S/R FAX 169
VFXV 14.4 V.32BIS W/VOICE 148
14.4 EXTERNAL S/R V.42 79

MONITORS & VIDEO

Monitors
APPLEVISION 1710AV $1069
NEC MULTISYNC XV15+/17+ 523/895
NEC MULTISYNC XE15/17/21 ..... 620/1099/1845
NEC MULTISYNC XP17/XP21 ..... 1135/2140

WE ALSO CARRY SONY, NSA HITACHI, RADIUS MONITORS

Video
PREC. COL. PRO 24X/24XK NUBUS $1159/825
RADIUS THUNDER IV GX-1152/1360/1600 .. 1635/1875/2040
RADIUS THUNDER 24 GT 490
ATI XCLAIM 4MB/2MB CARD 489/365
NUMBER NINE IMAGINE 128 PCI 4MB/8MB CARD ... 869/1149
IMSI TWIN TURBO 128 4MB/2MB CARD 555/362

DRIVES

Apple Ext. Drives
850MB .. $339 1.2GB/2.0GB .. 449/799

Quantum
1.2GBEXT. FIREBALL 359
850MB EXT. TRAILBLAZER .. 279
CAPELLA 2.2GB EXT. ... 759
ATLAS 4.3GB 8.6MN ... 1079

Syquest EZ135 $187!

Rumi Syquest
200MB SYQUEST W/CART .. $479
270MB SYQUEST W/CART ... 479

NEC
6XE MULTI-SPIN CD-ROM DRIVE $515
4XC 7-CHR CD-ROM DRIVE 359
4X 4V INT. CD-ROM DRIVE 176

Syquest
EZ135 W/CARTRIDGE ... $187
EZ135MB CARTRIDGE ... 19

Iomega
ZIP DRIVE/ZIP CART. .. $199/19.50
JAZ 1.0GB DRIVE/CART .. 605/123

FWB
2X CD RECORDER/WRITER .. $1349
4X CD RECORDER/WRITER .. 1969

ACCELERATORS

Daystar
POWERPRO 601 80MHZ W/RAM CACHE ... $1441
POWERPRO 601 100MHZ W/CACHE 1231
TURBO 040 40MHZ W/CACHE 679
TURBO 040I 33MHZ W/CACHE NO FPU ... 605
TURBO 601 66MHZ FOR IICI, IISI W/ADAPTER 851
TURBO 601 66MHZ FOR IIVX, IIVI, P600 851
TURBO 601 100MHZ FOR IICI, IISI W/ADAPTER ... 1165
TURBO 601 100MHZ FOR IIVX, IIVI, P600 1165
POWERCARD 601 100MHZ 946

66MHZ POWERCARD 601 $649!

MEDIA

Syquest

EZ135MB SYQUEST CART. ..	$19
EZ135MB SYQUEST CART. -10 PK.	180

THE ORIGINAL SYQUEST CARTRIDGE!

	1-4	5-9	10+
44MB 5.25"	$40	$39	$38
88MB 5.25"	$43	$42	$41
200MB 5.25"	$63		$62
270MB 3.5"	$49	$48	$47
105MB 3.5"	$55		$54

Sony
RECORDABLE CDROM 74MIN/640MB/10 PACK .. 8/73
3.5" 230MB OPTICAL/MAC $20/22
650MB OPTICAL 52
2.3GB/2.6GB OPTICAL .. 86/86

Verbatim
3.5" 128MB OPTICAL ... $21
3.5" 230MB OPTICAL .. 28
RECORDABLE CDROM 74 MIN 640MB SINGLE/10 PK 8/75
2SDD 3 1/2 10PK DISK ... 7.50
4MM/60M DATA CART 7
DATA 4MM DC 295 FT 9
DATA 8MM DC 367 FT 7
DC 2120 120MB QIC80 12

Iomega
ZIP 100 MB CART. ... $19.50
ZIP 100 MB CART. - 10 - PK .. 139
ZIP 100 MB CART. - 3 - PK... 45
JAZ 1GB CART/5 PK ... 123/490
JAZ 540MB CART/5 PK ... 69/294

POLICIES

PRICES SUBJECT TO CHANGE WITHOUT NOTICE
MAC XTRA - 1075 BELLEVUE WAY NE, STE. 114 BELLEVUE WA 98004

OVERNIGHT DEL. $7.50 AND UP, UPS GROUND $6 AND UP
RETURNS SUBJECT TO APPROVAL & RESTOCKING FEE
PHONE (206) 746-3803 FAX (206) 746-5324

WE ACCEPT P.O.'S FROM FORTUNE 500 AND EDUCATIONAL INSTITUTIONS
OFFICE HOURS: M-F, 7AM TO 6PM; SAT., 9AM TO 4PM, PST

WK072296

MarketPlace

THE SOURCE FOR DIRECT BUYERS OF MACINTOSH PRODUCTS, SERVICES AND INFORMATION

Hang Ten with Mach Ten

Make Your Macintosh An Internet Server

Mach Ten... gives every Macintosh from Classics to PowerMacs:

1. Unlimited Web 'Home' Pages
2. Unlimited TCP Connections
3. Unlimited Mail Accounts
4. Unlimited Internet Addresses
5. Unlimited Domain Names
6. Domain Name Service (DNS)
7. POP Mail Service
8. Mac/UNIX File Sharing
9. Mac/UNIX Printer Sharing
10. Unlimited Possibilities

Mac OS and UNIX on a single machine: *The Best Of Both Worlds.*

For more information, or to order call **1-800-6-MACH-10**

Internet: info@tenon.com http://www.tenon.com

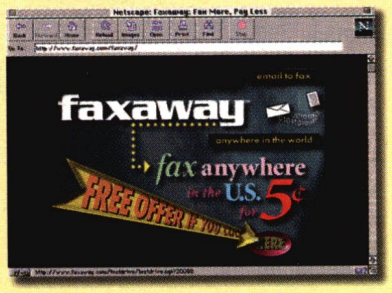
TENON INTERSYSTEMS

1123 Chapala Street, Santa Barbara, CA 93101
Tel: 805-963-6983 • Fax: 805-962-8202

©1995 Tenon Intersystems. All trademarks are the property of their respective owners.

inexpensive email-to-fax

faxaway



Faxaway℠ email-to-fax service is the low-cost fax solution. Many online services charge costly per page fees. Faxaway charges only for actual time spent. Send a fax to anywhere in the U.S.A. for $0.10, to Japan for $0.38, Germany for $0.35, or the United Kingdom for $0.23.

FREE TRIAL

Try Faxaway for free or sign up with a personal, reseller, or ISP account on the Web at
www.faxaway.com

Broadcast Faxing & More

Broadcast your email message to an unlimited number of fax machines effortlessly complete with customized cover page and file attachments. Faxaway is compatible with CompuServe, AOL and all Internet email applications.

Attention Internet Service Providers & Resellers

Bring email-to-fax capabilities to your customers with ease and earn a commission on each fax sent. Detailed, sorted billing statements available on paper or disk.

Faxaway
417 Second Avenue West
Seattle, WA 98119
Tel 1.206.301.7000
Fax 1.206.301.7500
Email info@faxaway.com

ADVERTISERS' INDEX 800-825-4ADS

Hardware
(Includes Bar Coding, Boards, Communications/Networking, Computer Systems, Peripherals, Used Equipment)

Boss Microelectronics 57
Bottom Line Distribution .58
Boxlight Corporation .55
Chip Merchant 52
Compu America 60
Compu Concepts 61
Compu USA 61
Computer Exchange, The .64
CPS Group 63
Data Computer Center 58
Data Memory Systems 57
Datatech Remarketing 63
Diamond Computer ..57
Digital Graphix 54
Eritech International .58
GE Capital CRS 63
Griffin Communications 62
ICN 58
Immaculate 63
Infinity Micro Computers60
Kelley Computers 62
LA Computer Center ..54
Mac 1 61
Mac Base 52
Mac Net 62
Mac Professional 61
Mac Rentals 63
Mac Resq 62
Mac Sale International56
Macworks 60
Maxed Systems 63
Media Guide 61
Media Store 63
Memory Merchants ..63
Memory Traders 52
Micro Products 58
MPD 58
Network Technologies 62
Other World Computing52,58
Peripheral Outlet 53
Peripherals & Systems .62
Pre-Owned Electronics64
Promax Technology ..55
Que Computers 61
Reply Corporation .52,57
Right Computer 60
Shreve Systems 59
Sonnet Technologies ..52
Sources Communications57
Tahoe Peripherals 51
T.D. Curran 63
V.L. Promac 61
Vst Power Systems, Inc. 55
Wetex International ..62

Software
(Includes Bar Coding, Business Management, CAD-CAM, Communications/Networking, Desktop Publishing, Education, Finance, General, Graphics, Multimedia)

ACI US Inc. 55
Duet Development Corp.. 65
Fax -Away 50
Markzware 64
Mindgate Tech Inc. ...50
Miramar Systems Inc. .55
Tenon Intersystems ...50
Vicom Technology ...64

Special Services
(Includes Digital Output Services, Disk Duplication, General, Graphics, Programming/Consulting, Rental/Leasing, Repair/Recovery Services, Toner Recharging, Training)

3E Corp. 64
800wefixmacs 65
Action Color & Design 64
Drivesavers 64
DT&T Macintosh Services65
Isomedia 64
Lazarus Data Recovery65
Micro Com 64
On Track Data Recovery 64
Tellan Software 64
Total Recall 65

Accessories
Microstore 65
Moustrak 65

CD ROM
Catalogic Corporation 65

Career Opportunities
Macxperts 65
Scientific Placement ..65

LaserMerge Electronic Paper®

Jul 15 | 7 | Jul 29

This Week's Feature

Now! This is the button you push to make Pamphlets and Booklets

LaserMerge

Installs in English, French, German, and Spanish

New! version 2.0

Replace over $800 of print utilities like...
WaterMarker, Toner Tuner, Peirce Print Tools, ClickBook, CardShop, Bar Code Pro, Print Logger, and many others...

***LaserMerge** is a print extension that sits between any application and any printer driver... It uses your designed **Electronic Paper Templates** as a recipe for how to control any application's printed output...*

Create this feature and many more from one utility:

- Print 10x Faster
- Create new Paper Sizes & Layouts
- Pamphlets
- Create your own multi-ups
- Letterheads
- Forms
- Business Cards
- Invoices
- Name Plates
- Badges
- Envelopes
- Cover Pages
- Greeting Cards
- Certificates
- 38 Print-Time Text Commands
- Each layer can be colorized, clipped, moved, duplicated, rotated, & scaled to your design...
- Control Toner and Ink Level
- Watermarks
- Create Bar Codes
- Sign your Letters and Faxes Electronically
- PS Level 2 Forms
- Make Labels
- Even/Odd Prints
- Serialization
- Hi-Res Paper
- Import EPS/PICT
- Reduce Network Traffic
- Print Logging
- Over 160 ClickBook & Avery Templates
- Impositions
- Print Stamps
- Store Images on the Printer's Disk or in its Memory

DayRunner, Day-Timer, Franklin Planner, Tri-fold brochure, Address books, Avery organizers, Flip books, Hymn books, Tech manuals, Government documents, Phone lists, Parts lists, Term papers, Story boards, Restaurant menus, Thumbnail image guides, Event handouts, Database lists, Presentations, Business plans, Pocket references and so much more...

*Are you tired of what **ClickBook can't do?***

- Chops off output
- Shrinks pages to force fit
- Limited layout design
- Can't handle page creep
- Incompatible with many printers & applications
- Only makes booklets

To Create Pamphlets with LaserMerge...

- Select pamphlet template
- Watch as your application adjusts to the layout
- Print with the template...

...comes with over 60 ClickBook templates so even ClickBook users can get started right away!

*...then, step up to what **LaserMerge can-do!***

- Applications adapt to layouts so nothing gets chopped
- Shrink, relocate, & turn mini-pages to your design
- Unlimited design to create any pamphlet layout
- Make layouts that adjust for page creep in thick booklets
- Works with any printer and any application— Really!

...and of course, you can jazz up your pamphlets with some of LaserMerge's other features!

- Watermarks
- Page numbers
- Page count
- Personalized copies
- Address labels for mailer pamphlets
- Time & Date
- Even/Odd prints
- Colorize the application output
- Add graphics & text to body & in the margins
- Create borders
- Add cut marks

For 101 ways to use LaserMerge Electronic Paper

Call (800) 648-6840
or visit www.mindgate.com

30-day money-back guarantee

System 7 required. Works with both PostScript and QuickDraw printers. LaserMerge's miracles require only 32K of system memory. The Users Guide contains over 42 detailed examples to get you started right away! QuickDraw GX is NOT required!

MindGate Letterhead
Design your own templates and then use them to control any application's printed output...
This is the button you push℠

COMPETITIVE UPGRADE from ANY Print Utility for only **$40.**

VISA MasterCard

List Price: Base unit $95
Networked $15-$25/unit
Worldwide: (615) 937-6800
Fax Facts: (615) 937-INFO (4636)
Fax Orders: (615) 937-6801

MindGate® Technologies, Inc.
164 Oliver Smith Road
Flintville, TN 37335-5335

MindGate, LaserMerge, Electronic Paper and their logos are registered trademarks and "This is the Button You Push" is a salesmark of MindGate Technologies, Inc. All other trademarks belong to thier respective companies.

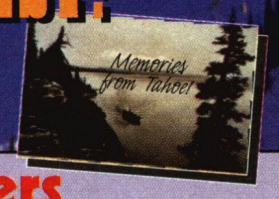
Tahoe Peripherals

WILDEST MEMORY PRICES IN THE WEST!

1-800-288-6040

- Resellers Welcome Order Line: ext 1776
- Gov't Order Line: ext1954
- International Order Line: 001-702-823-2222
- Fax: 702- 823-2200

Mon - Fri. 6am - 6pm NEW Sat. 8 am - 12 noon PST



Kingston TECHNOLOGY CORPORATION

POWERBOOK 500/5300/190
(Uses self refresh DRAM)

Kingston 4MB	155	—	101
Kingston 8MB	192	182	190
Kingston 16MB	355	348	355
Kingston 24MB	530	530	—
Kingston 32MB	699	676	680

Kingston Technical Support 714 435 2639

Memory

168 Pin DIMMS
For PowerMac 9500, 8500, 7500, 7200

4MB 60/70NS	NOW	69
8MB 60/70NS	NOW	81
16MB 60/70NS	NOW	143
32MB 60/70NS	NOW	285
64MB 60/70NS	NOW	585

72 Pin SIMMS

4MB 60/70NS	NOW	36
8MB 60/70NS	NOW	65
16MB 60/70NS	NOW	139
32MB 60/70NS	NOW	252

64 Pin SIMMS

1MB 80/70NS	42
4MB 80/70NS	150
8MB 70NS	350
16MB 70NS	650

4MB PAL SIMMS for II,IIx

4MB 80/70NS	139

STANDARD 30-pin SIMMs

1MB 100NS	24
1MB 70NS	24
2MB 70/80NS	57
4MB 70NS	76
8MB 70NS	218
16MB 70NS	385

PowerMac 6100,7100,8100 CACHE

256K	140
512K	229

Mac VRAM

256K	17
512K	28

PowerMac 7200,7500,8500,9500 CACHE

256K	90
512K	136

PowerMac 7200,7500,8500,VRAM & 9500

1MEG 72/75/85	54
2MEG 9500	159

DOS Memory
30-pin 36-bit SIMMS

1MB 70NS	27
4MB 70NS	99

72-pin 36-bit SIMMS

4MB 70NS	92
8MB 70NS	185
16MB 70NS	365
32MB 70NS	730

Printer memory

APPLE

Laserwriter II,IINTX, IINTX-J	4MB Kit	TPIMAPELL	171
Laserwriter IIF, IIG	4MB Kit	TP4MM IICI	109
	16MB Kit	TP16MMIICI	495
Laserwriter4/600	4 MB	TPA--LW600/4	165
Laserwriter16/1600PS	4 MB	TP1M3270	105
	8MB	TP2M3270	208
	16MB	TP4M3260L	425
Laserwriter Pro 600, 630	4MB	TP1M3270	105
	16MB	TP4M3260L	425
Laserwriter Pro 810	4MB	TPA-LW810/4	167
	8MB	TPA-LW810/8	299
Laserwriter Select 300	1MB	TP1M8270	29
	4MB	TP4M8870	115
Laserwriter Select 310	1MB	NA	37
	4MB	NA	105
Laserwriter Select 320	2MB	NA	102
	4MB	NA	187
	6MB	NA	260
Laserwriter Select 360	16MB	TP16MSEL360	422

Modems

GLOBAL VILLAGE
Global Village Communication

Global Village TelePort Platinum	$228
Global Village TelePort Gold II	$108
Global Village PowerPort Platinum PB	$320
Global Village PowerPort Mercury PB for the 500 Series and Duo's	$320

DAYSTAR

PowerPro 100MHZ	1198
Turbo 100MHZ for MacII Ci	1140
Turbo 100MHZ for MacIISI	1095
Turbo 100MHZ IIVi, IIVX, Perf 600	1095
Turbo 66MHZ IIVi, IIVX, Perf 600	790
Powercard 601 50/66MHZ	589

HEWLETT PACKARD

DeskJet 500, 500C, 510, 550C Plus, 520, 560C	256K Cartridge				42
LaserJet II,IID,III,IIID, IIP,IIP Plus, IIIP	2MB	93	4MB		165
LaserJet IIISI,PaintJet XL 300	1MB	45			
	2MB	85			
	4MB	165			
	8MB	325			
DesignJet 600,650C	4MB	139			
	8MB	299			
	16MB	550			
DesignJet 200,220,	1MB	45			
LaserJet 4, 4M4SI, 4SIMX,	2MB	85			
DeskJet 1200C,	4MB	165			
DeskJet 1200C/PS	8MB	325			
LaserJet 4L	1MB card	49			
LaserJet 5L 1MB 66	2MB 115		4 MB 199		8MB 345
LaserJet 4P, 4MPlus	1MB	45			
LaserJet 4V, 4MV	2MB	85			
Colour LaserJet	4MB	165			
LaserJet 5 Series	8MB	325			
DeskJet 1600C/1600CM	16MB	550			
	32MB	820			

Scanners & Printers

Polaroid

SLIDE SCANNER
Polaroid (35mm slide scanner) up to2700 dpi in under a minute $1549

POLAVIEW LCD PANELS
Project Your Workstation Graphics from Computer to screen.
LCD Panels project computer or video images in real - time.

HR 2500 New Polarview (1024x768 pixel res.16.7 million colors)	$7999
HR 3000 LCD Ad Planner (16.7million colors: active-matrix TFT technology)	$4299
HR 1800 LCD Panel Line Art (256,000 colors: active-matrix TFT technology)	$3200
HR1500 LCD Ad Planner (256,000 colors: active-matrix TFT technology)	$2400

All the above Panels come with a carrying case

POLAROID POLARVIEW LCD PROJECTORS
Give your presentation impact with Polaroid's new Polaview 105, 95, 90 and LCD Projectors. Computer and /or video graphics directtly onto a meeting room screen.

Polarview 95	$7400	Polarview 85E	$5100
Polarview 80	$5999	Polarview 90	$6100

ALL POLAROID ACCESSORIES AVAILABLE

AGFA

AGFA SCANNERS

Studioscan IIsi (new speed improved)	$799
Studioscan IIsi Transparency Adaptor	$379
Arcus II IN STOCK (call for best pricing)	$1995

QMS MAGICOLOR CX

Laser printer series Call for Prices

VISIONEER

(models for Mac & PC) Visioneer Paperport (models for Mac & PC)

GCC TECHNOLOGIES
Laser Printers

ELITE 600	$1347
ELITE XL 608	$2399
ELITE XL 616	$2699
ELITE XL 808	$3199
ELITE XL 1208	$4499
ELITE XL 1208SS	$6399

CALL FOR CURRENT PRICING!!!!!!!!!!

'TORAY' PHASEWRITER DUAL
Optical Storage Solutions

- 650Mb capacity per cartridge
- Advanced Phase Change Rewritable Technology- allows you to write to the same cartride again and again • Quad Speed CD Rom player • SCSI-II • Device software included

The Phasewriter Dual PD drive is a multimedia desktop system that eliminate the current need for an internal CD-Rom and external add-on storage peripheral by combining the two popular functions - at less than the price of the 2 products.

Call for latest prices

EPSON®
Stylus. PRO XL

Large-format printer Laser printer series

• Photo Quality • Wide Format
• 720 x 720dpi • Exclusive ink Jet Technology

Networking

ASANTÉ

Micro AsantePrint, 10BT	$287
Micro AsantePrint, Thk/Thn/10BT	$287
NuBus MacII/Pref 600 Thk/10BT	$109
NuBus MacII/Pref 600 Thk/Thn	$115
MacLC/Q600 Color Classic Thn	$109
MacLC/Q600 Color Classic 10BT	$90

WE ARE NOW SELLING FOCUS ENHANCEMENT PRODUCTS !!

Same Day or FREE Shipping Call for details

- All product meets or exceeds Apple's original specs. •
- All modules use NEW DRAM late 1994 datecode •
- All deliveries will be made on promise date or WE PAY shipping. •
- All memory modules carry a LIFETIME WARRANTY. •

Tahoe Peripherals is a wholly owned subsidiary of the Datrontech Group, a publicly traded corporation

All prices reflect cash discount. Prices subject to change without notice. NEVADA residents only must add applicable sales tax.

Credit cards are verified for fraudulent use.

VISA MasterCard DISCOVER NOVUS

Tahoe Peripherals Inc, 760 Margrave Drive Suit 100, Reno NV, 89502-3522

Our Web Site: http://www.tahoe-peripherals.com/

E-mail address: mw@tahoe-peripherals.com

Premier

SONNET BEST BUYS TO RUN YOUR MAC FASTER

Accelerate Your Mac to 68040 Speed

Sonnet Presto accelerators increase LC and Mac II series performance 200-600%.

		w/FPU
50/25MHz LC, LC II	$199	$299
80/40MHz IIci, IIsi*	$299	$399
80/40MHz with 128K cache	$399	$499

*Adapter req'd $49 NuBus Adapter IIsi $149

Math Coprocessors for 68040 Macs

If you use CAD, Excel, or rendering programs, you will speed through applications like never before.

25MHz Q605,C/Q610,C650,LC475,P47X..$149*
33MHz LC575,LC630,P57X,P63X $199*
33MHz PB190,PB52X,PB54X,Duo 280 ..... $299*
* with LC040 exchange. 68882 upgrades from $49.

Power Mac Cache/FPU

256K PowerMac 5400 & 5260 ..... $CALL
256K 6100/7100/7200/7500/8500 $69/89
512K 7200/7500/8500 ..... $135
Power FPU software will run 68K FPU apps on Power PC FPU $75

Fastest Quadra Ever! Plug in a 100/50 MHz 68040 Board and Fly

Double speed with full compatibility. Works in Quadra/Centris 610, 650, 660AV, 700, 900. 80/40MHz unit for Centris 610.

80/40 MHz..... $249 w/FPU..... $299
100/50 MHz w/FPU..... $399
660AV NuBus Adapters.. $99

A Fast 68030 Gives Your Older Mac New Life

Give your older Mac more muscle with a Sonnet Allegro accelerator.

25 MHz Classic	1x72pin SIMM slot..... $199
33 MHz SE	4x30pin SIMM slots $199
33 MHz Mac II/IIx	Supports RAM Doubler..... $189
33 MHz LC II	Includes FPU & 16K cache..... $149
33 MHz Color Classic	Includes FPU & 16K cache..... $149

MasterCard SONNET TECHNOLOGIES, INC., 18004 Sky Park Circle Irvine, California 92714, 714-261-2800 Fax 261-2461 800-786-6260 sales@sonnettech.com VISA

(800) 808-CHIP (800) 808-2447

SIMMs, DIMMs, PB & DUO MODULES, VRAM... SPECIAL ORDERS!

THE Chip MERCHANT

Why should YOU pay for fancy advertising??? Buy *quality* memory, not expensive ads!

For Ordering Call: (800) 808-CHIP Ext. 3

For Information Call: (619) 268-4774
4870 Viewridge Ave., San Diego, CA 92123

LIFETIME WARRANTY !!!
On NEW & USED
SIMMs, DIMMs, & Printer Memory

We also BUYBACK used memory! Call Ext. 7 for details.

(800) 808-2447 (800) 808-CHIP

visit us on the web@ http://www.fastermacs.com

OtherWorldComputing
SERVING THE MAC UNIVERSE SINCE 1988

NO CREDITCARD SURCHARGE AT OWC!

800-275-4576
Intnl: 815-338-8685 Fax: 815-338-4332
224 W. Judd St., Woodstock, IL 60098

ORDER TODAY, BE FASTER TOMORROW!

OWC 120-210 MHZ. AfterBurner604 POWER MAC ACCELERATOR

MorePowerForYourPowerMac!

OWC AfterBurner604

Now Accelerate your 72/75/85/9500 PCI PowerMac from 120 up to 210 Mhz! The cool new OWC AfterBurner604 is designed to be the easiest way to crank more power out of your PMac processor. Unlike other accelerators, once installed, the speed of the OWC AfterBurner604 can be easily adjusted without removing the processor card! $59.95

84 Mhz OWC Rocket

Accelerate your PMac 61/7100 and Performa 61XX up to 84 Mhz!
Quick, Easy Safe Installation • Dual Color LED's Indicate Correct Installation Quiet Fan Keeps CPU at Optimum Temperature • 1000's of Satisfied Users $49.95

Level 2 Cache

PCI PMac 72/75/76/85/9500
256k $95 512k $139
Nubus PMac 61/71/8100
256k $59

OWC Rocket & 256k Cache Bundle for PMac 61/71/8100 $99 Wow!

Also in this issue, find our ad for Super Deals on PowerMacs, Memory, Hard Drives, Monitors and More!

MEMORY : Buy • Trade • Sell

High Quality Ram @ Astonishing Prices w/ Lifetime Guarantee & Mac Smart Reps! #$%# yeah!
800 - 315 - 7807
Call our 24hr Bargain Bin: Ext 1

We stock:
• 30 & 72 pin SIMMs
• DIMMs • Powerbook
• VRAM • Cache
• Clip On Accelerators

Trade-in: And receive a 5%bonus!
We BUY the widest variety of RAM
• At the best prices
• Any Quantity, Any Speed
• 256KB - 64MB

MEMORY TRADERS 703-243-4006 Fax 703-522-6626
1117 N. 19th St. Suite 1201 • Arlington, VA 22209

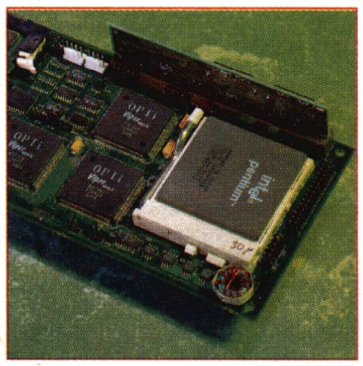
Got Mac?
Need Windows?
Get Reply!

PCI Cards Shipping Now

The only answer when you really need to run DOS and Windows on your Mac

Combine the advantages of your Macintosh™ computer with the freedom to run any DOS or Windows® application.

- 5x86 and Pentium® processors to 200MHz
- Supports DOS, Windows, Windows for Workgroups, Windows 95 and Windows NT
- PC parallel and serial ports
- Multi-node IP access (access two IP addresses concurrently)
- PC game port and Sound Blaster 16 support
- Starting at only $795



When you need the performance of a real PC to run DOS and Windows on your Mac, Reply is the only answer. Call us today or visit our web site.

1-800-801-6898
http://www.reply.com

Macworld EXPO

reply

See us at the MacWorld Expo
Bayside Exposition Center
Booth # 466

Reply Corporation · Tel 408.942.4804 · Fax 408.956.2793

Reply and Reply Corporation are trademarks of Reply Corporation. All other product names referenced herein are trademarks of their respective companies.

MACBASE™ USA Since 1988
1941 B Freeman Signal Hills, CA 90804
HOURS : M-F 8-6 PST SAT 10-2
(800)951-1230
International (310)498-1230 Fax (310) 498-0032

7600/120 16/1.2GB/CD/L2

$2299 LIMITED

Mon. & Kb sold separately

POWER MACS

6100/66 8/500/CD	New	$1089
7200/90 8MB/NO HD		$999
7200/90 8/1.2GB/CD	BEST BUY!	$1449
7200/120 8/1.2GB/CD/PCPentium		$2459
7200/120 8/1.2GB/CD		$1659
7200/120 16/1.2GB/CD/ 256K		$1858
7500/100 16/1GB/CD		$2099
7500/100 16/1GB/CD Refurbished		$1799
8100/100 8/700		$1899
8500/120 16/1GB/CD/L2		$2789
8500/132 16/1.2GB/CD/L2		$2999
8500/150 16/2GB/CD/L2		$3799
9500/120 16/1GB/CD/VI Refurb.		$2398
9500/132 16/1GB/CD/L2/VI		$3479
9500/150 0/0/CD/L2/VI		$3298

PERFORMA

6290 8/1GB/CD	$1499
6320/120 16/1.2GB/CD/TV	$2098

MONITOR & PRINTER

Apple 15"/15" REF.	$359/$289
Apple 1705/1710	$699/$889
Apple 1710AV/20"	$929/$1799
Color StyleWriter 2400/1200	$289/$189
LW 4/600 / 12/640 New	$799/$1499
Color LaserWriter 12/600	CALL

Prices reflect cash discounts and subject to change without notice.

CUSTOM CONFIGURATION AVAILABLE

UMAX Computer Corporation SUPERmac **S900L** A.S.P.D.

$3799

Offering 150 Mhz PowerPC™ 604 processor, 6X CD-ROM, 6 PCI slots, 5 expansion drive, 16 MB of RAM, Built in SCSI-2 and 10Base-T, Ext. KB, Mouse, 2GB HD, IMS Twin Turbo 128M graphics card with 4 MB VRAM, & more

POWER BOOKS

PB 540c 4MB/320HD	BEST BUY!	$2099
PB 150 8/250		$629
PB 190cs 8/500		$1429
PB 5300cs/100 8/500		$1899
PB 5300cs/100 16/750		$2389
PB 5300c/100 8/500		$2299
PB 5300c/100 16/750		$2899
PB 5300ce/117 32/1.2GB		$3889
DUO 2300c/100 8/750		$2349
DUO 2300c/100 20/1GB MODEM		$3249

MEMORY

8MB / 16MB DIMM	$89/$149
32MB / 64MB DIMM	$289/$489
256K/512K CACHE DIMM	$79/$139
1MB V-RAM	$49
4MB / 8MB SIMM	$59/$89
16MB / 32MB SIMM	$159/$289
4MB / 8MB (PB5300&190)	$129/$169
16MB / 32MB (PB5300&190)	$259/$499
4MB / 8MB (PB500)	$179/$259
16MB / 32MB (PB500)	$369/$559

Free FedEx Two Day Shipping*
*Only For Memory products purchased

MACBASE JAZ 1GB W/CART.	$469
JAZ 1GB CARTRIDGE	$99

Now On World Wide Web http://www.MacBase.com

PERIPHERAL OUTLET

WORLDWIDE MEMORY MANUFACTURERS

800/259-8989

www.peripheral.com

Founded in 1986, Peripheral Outlet, Inc. is a leading worldwide manufacturer of computer memory upgrades. Our ten-year relationship with customers is built on mutual trust and respect. You have no time for problems; that's why our salespeople don't promise unless they can deliver. Top-quality memory, delivered on time, as agreed and at affordable prices, are the cornerstones upon which Peripheral Outlet, Inc. builds its relationships.

Unsurpassed Technical Support. Our tech support team stays abreast of the changing memory business, offering reliable, informed answers to your questions. Easy-to-follow instructions are available with each shipment. Technical assistance is toll free!

Lifetime Warranty. Peripheral Outlet, Inc. stands behind every product we sell. We test each and every module prior to shipping. If a problem ever arises with a part, however, send it back for a prompt repair or replacement, often performed within 24 hours of our receiving the part from you.

100% Reliability. Our buyers source top-quality components worldwide and build modules with quality unsurpassed in the industry. Every memory module sold is 100% tested before shipping and backed by a lifetime warranty. No arguments, no hassles.

Aggressive Pricing. Peripheral Outlet, Inc. sells millions of dollars in upgrades every week. Our consistent buying in large quantities assures you a competitive price, every time you order.

PERIPHERAL OUTLET, Inc.
327 East 14th, PO Box 2329
Ada, Oklahoma 74820
405/332-6581 FAX 405/436-2245
sales@peripheral.com
HOURS: Monday-Thursday 6AM-7PM,
Friday 6AM-6PM CST

International Toll Free Numbers
Distributors and Resellers only, please.

Australia 1 800 122 764
Belgium 0800 7 1661
Denmark 8001 6175
Finland 08001 10123
France 0590 1997
Germany 0130 818 983
Greece 00 800 11 948 0302
Italy 1 678 77937
Japan 0066 33800 120
Luxembourg 0800 4009
Netherlands 0602 26638
Norway 800 12698
Portugal 0501 11 077
Spain 900 931 089
Sweden 020 797 857
Switzerland 155 7608
UK 0800 962 058
USA 1 800 256 6581

See us at MacWorld Expo in Boston! Bayside booth #1421

MEMORY FOR THE MAC
CALL FOR THE BEST PRICES!

168 pin DIMMs for PCI Macs
8, 16, 32, and 64 Megabyte SIMMs

72 Pin Memory for Nubus Macs
4, 8, 16, 32, and 64 MB non-composite SIMMs

Standard 30 pin SIMMs
1, 2, 4, 8, and 16 Megabyte SIMMs

PowerBook 5300/190 Memory
4 / 8 Megabyte upgrades
16 / 32 Megabyte upgrades
40 / 48 / 56 Megabyte upgrades

PowerBook 500-series Memory
4 / 8 Megabyte upgrades
16 / 24 Megabyte upgrades
32 Megabyte upgrade

PowerBook 100-series Memory
2, 4, 6, 8, and 10 MB Upgrades - Call for the latest prices! All PowerBook memory upgrades include necessary tools, static protection, and instructions for safe installation.

Duo-series Memory
4 / 8 Megabyte upgrades
12 / 14 Megabyte upgrades
20 / 28 Megabyte upgrades

Video RAM
1 MB VRAM for 7200/7500/8500
2 MB VRAM for ATI Video Card
256K/512K VRAM 80ns

Cache Cards, Etc.
Cache DIMMs for 7200/7500/8500
256K–1MB Cache Card for PowerMacs

68882 Math Coprocessors
68882 25 MHz, 33 MHz, and 50 MHz FPUs

Newton Upgrade Products
512K, 1 MB, and 2 MB Static RAM Storage Cards
2 MB, 4 MB, and 8 MB Flash Storage Cards
16 MB, 20 MB, and 24 MB Flash Storage Cards

We accept Visa/MC/Amex/Discover, and COD Cashiers check upon approval. Educational, Government, and Fortune 500 P/Os accepted upon approval. Due to volatility in the market all prices and availability are subject to change without notice.

We carry memory for all popular desktops, laptops, workstations, and printers.

Miscellaneous

68040 Processors with FPU
25 MHz, 33 MHz, and 40 MHz.

LaserWriter 320 2,4,6 MB upgrades
LaserWriter Pro 810 4MB/8 MB upgrades
T.I. MicroLaser 1 MB
Hewlett Packard printers
68851 16MHz PMMU
if requested, MODE 32 software included free w/PMMU
Mac Portable 3-7 MB Cards

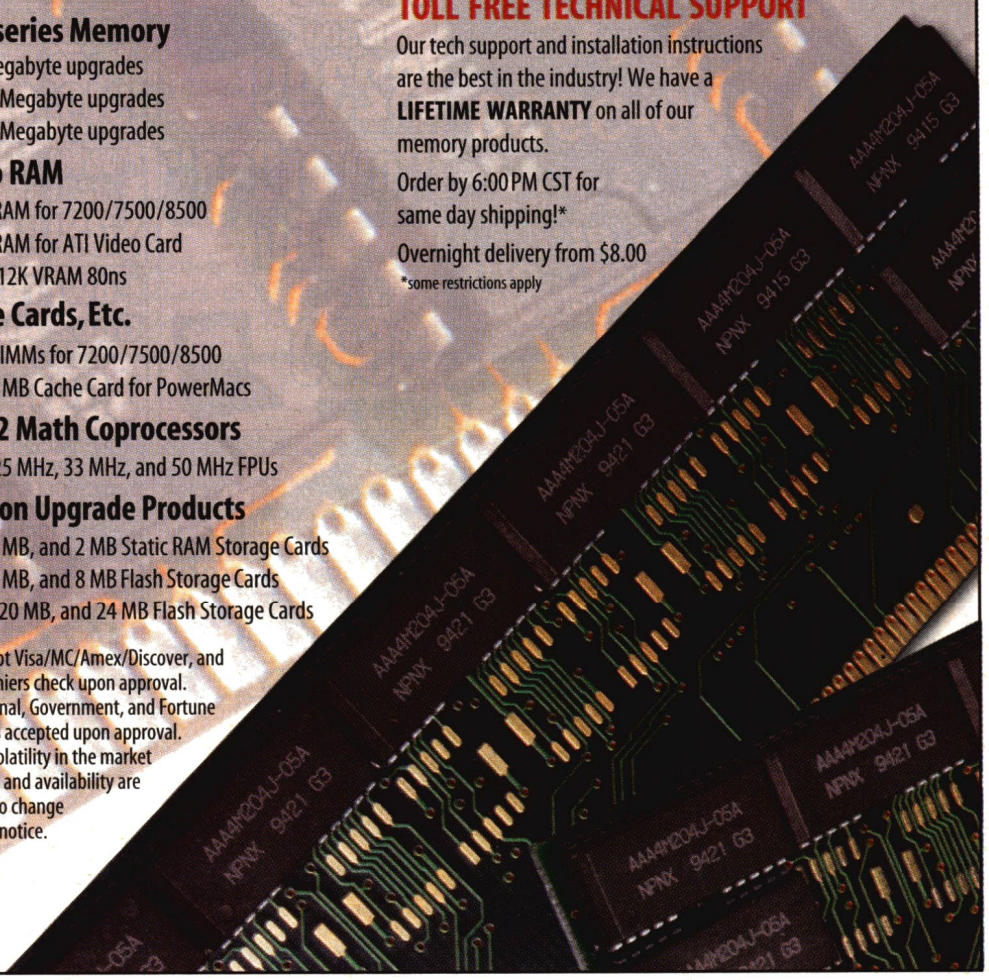
TOLL FREE TECHNICAL SUPPORT

Our tech support and installation instructions are the best in the industry! We have a **LIFETIME WARRANTY** on all of our memory products.

Order by 6:00 PM CST for same day shipping!*

Overnight delivery from $8.00

*some restrictions apply



$0 Down 100% Business Financing NO Payments for 90days

7200/601/90mhz
7600/604/120mhz
8500/604/150mhz

NEW 150mhz PowerMacs

7200/601/120mhz
7600/604/120mhz
9500/604/150mhz

FREE!
5x200mb Syquest Cartridges with lease
$345 Value

ULTIMATE DESIGNERS SPECIAL

- PowerMac 8500/132 PowerMac 8500/132 Starting at $3079
- Internal CD ROM
- 64MB RAM
- 2GB internal hard drive
- Extended keyboard
- Sony 20SF II Trinitron monitor
- ATI Xclaim PCI Graphics Card 4MB
- Microtek Scanmaker 3E
- SyQuest 200 Drive
- Okidata 610e/ps 600dpi Laser Printer
- 12x12 Graphics Tablet

Per Month $249

FREE VALUE ADDED SERVICES

Most Popular Configuration

Graphix & CAD Systems

FREE!
Quark With Every Graphix System Lease
$650 Value

7600/120 MID RANGE DTP SYSTEM Per Month $299

- PowerMac 7600/120
- Internal CD ROM
- 64MB RAM
- 2GB internal hard drive
- Extended keyboard
- Sony 20SFII monitor
- ATI XClaim PCI Video Card 4MB
- Microtek Scanmaker II E6
- Sony 8GB DAT tape drive
- SyQuest 200 Drive with 2 carts
- GCC 608 600dpi, 11x17 Printer
- 12x12 Graphics Tablet

Systems Starting at $2229

POWERMAC SYSTEM SPECIALS

CPU/Extended Key/Mouse	Monitor/Card	Cash	Lease	
9500/150 /40mb/2.0GB/CD	Sony 20SF II/VRAM	$6499	$179	SALE
8500/150 /80mb/2.0GB/CD	Sony 20SF II /VRAM	$6749	$189	
8500/132 /16mb/1.2GB/CD	Viewsonic 17" /VRAM upgrade	$4369	$129	SALE
7600/120 /32mb/2.0GB/CD	Sony 17SF II /VRAM upgrade	$4099	$119	
7200/120 /24mb/1.2GB/CD	Sony 17SF II /VRAM upgrade	$3269	$99	SALE

Optical Cartridges

OEM 128MB	$10.99 SALE
OEM 230MB	$16.99
OEM 600/650MB	$35
OEM 1.2/1.3GB	$49

74 MINUTE CD ROM RECORDABLE MEDIA
$68.99 BOX OF 10

Monitors

Sony 15SX1	$399	
20GLS	$1329	
Viewsonic 17EA AV	$699	
Sony 17SF II	$889	New
Sony 20SF II	$1699	SALE
Radius 21 PrecisionView	$2339	
PressView 21SR	$3199	

SyQuest & ZIP Drives

Includes 25/50 cable, active terminator, FWB Hard Disk ToolKit

ZIP 100 External/1carts	$199	
EZ 135 External/1carts	$199	
200MB External/2carts	$399	FREE

SyQuest Cartridges

270MB	$56
200MB	$67
88MB	$44
44MB	$39

FREE Two 200MB Cartridges with Syquest 200MB Drive Purchase!!!

Digital & Multimedia Systems

Perfect for: Video Editing, Video Production, Digital Imaging, Multimedia and Hi-End Graphic Professionals

Real Time Video Capture

9500/150 DIGITAL VIDEO POWER SYSTEM Per Month $399

- PowerPC 9500/150MHZ
- Internal CD ROM
- 80MB RAM
- 2GB hard drive
- Extended keyboard
- Sony 20SF II Monitor
- ATI XClaim PCI Video Card 4MB
- TrueVision Targa 1000 PCI Digital Card
- 4GB SCSI-3 Fast&Wide disk array
- FWB Jackhammer SCSI-3 controller
- Sony 8GB Tape drive

Systems Starting at $3745

FREE!
Adobe Premiere With Every Digital System Lease
$485 Value

Memory

16 MB Only $169 SALE

Lifetime Warranty

Size	DIMMS	72pin SIMMS
4MB	$69	$49
8MB	$89	$89
16MB	$169	$179
32MB	$329	$349
64MB	$679	NA

Hard Drives

Quantum

	Internal	External	
Quantum 1GB	$209	$279	SALE
HP 2GB	$419	$489	
Quantum 4GB	$819	$889	
Seagate 2GB Barracuda II	$719	$789	
Seagate 4GB Barracuda II	$1149	$1219	
Seagate 9GB	$1989	$2089	

Optical Drives

IOMega Jaz 1.0GB/w cart	$599	
Olympus 1.3GB	$1299	SALE
MaxOptix Tahiti 4 2.6GB	$2399	
Sony 2.6GB	$1889	

Software Specials

Adobe Photoshop v3.05 CD	$519
Quark v3.32 CD	$639
Omni Page Professional v5.0 CD OEM	$149
MicroSoft Office v4.2.1 CD	$329 SALE

Digital GraphiX

Your Value Added Mac & PC Source
20695 S. Western Ave Suite 132
Torrance, CA 90501

Intel Inside PC Systems also available

800-680-9063 SALES
310-783-1525 FAX
310-783-1515 INTERNATIONAL
Order from 5:30am - 6:00pm M-F
Order from 9:00am - 4:00pm Saturday

800-680-9063

LA's LEADING COMPUTER STORE!

LA COMPUTER CENTER

(800) 689-3933
ORDERS ONLY!
PH. (310) 473-2535 FAX (310) 312-9041
E-mail us at:
lacc@directnet.com
INTERNATIONAL ORDERS WELCOME!
Call for Quantity Pricing!
UNIVERSITY, SCHOOLS, GOV'T & FORTUNE 1000 P.O.'S ACCEPTED!

PRINTERS

LaserWriter Select 320 $599

LaserWriter Select 300	$499
LaserWriter 4/600	$799
LaserWriter 16/600/PS	$2099
Color LaserWriter 12/600	$5399
HP 4M PLUS	$1499
Portable Stylewriter	$239*
StyleWriter 1200/2400	$199/299
StyleWriter 1500/2500	$249/369
StyleWriter 2200	$299
StyleWriter 1200	$149*
STAR COLOR PRINTER (MAC)	$99

GE 4 YEAR ON SITE WARRANTY!
ASK YOUR SALES REP REGARDING GE EXTENDED ON SITE WARRANTY

$100 to $350	$351 to $700	$701 to $1200	$1201 to $2000	$2001 to $3000	$4001 to $5000
$49.95	$79.95	$139.95	$169.95	$199.95	$259.95

FedEx NEXT DAY AND SAME DAY SHIPPING AVAILABLE, WE SHIP WORLDWIDE!
OPEN MON-SAT, VISIT OUR SHOWROOM!
12002 PICO BLVD, WEST LOS ANGELES, CA 90064

* Reflects Refurbished Units. Prices Subject To Change Without Notice.
CALL FOR LATEST PRICE. ALL PRICES REFLECT A 3% CASH DISCOUNT
Credit Cards Will Be Verified For Fraudulent Use.

POWERBOOKS

PowerBook 5300C 8/500 $2399

PowerBook 5300C 16/750 $2999

PowerBook 5300CS 8/500 $1949

PowerBook 5300CE 32/1GB $3899

PowerBook 150 8/250 4/250 $599 $699

PowerBook Duo250 4/200 $599*

5300CS 16/500	$2099	540C 4/320	$2199*
5300C 8/500	$2399	540C 12/320/mod	$2699*
190CS 8/500	$1399	Duo2300C 8/750	$2499
180C 4/160/mod	$1799*	Duo2300C 20/1.1GB	$2999
520 4/240	$799	Duo250 12/200/mod	$899*
520C 4/240	$CALL	Duo280 4/200	$999*
520C 4/240/mod	$CALL	Duo280 12/240/mod	$1299*
520C 12/320/mod	$CALL	Duo280C 4/320	$1199*

ZIP $149 AFTER REBATE JAZZ $549

MONITORS

SONY

1425 14"	$349
15SXI/15SFII 15"	$429/449
17SFII 17"	$799
GDM 17SEII	$999
20SFII 20"	$1549

RADIUS

SuperMatch 17"	$599*
SuperMatch 20"	$799*
SuperMatch 21TXL	$1499*
PrecisionView 21	$2299

APPLE

14" MultiScan $299

15" MultiScan	$369
17" 1705	$729
17" 1710	$899
17" 1710AV	$949
20" MultiScan	$1799

POWERMACS

9500 150MHZ! 16/2GB/CD $3899

MONITOR AND KEYBOARD SOLD SEPERATELY.

NEW MODELS

7200 120MHZ!	8/1.2GB/CD	$1699
7200 120MHZ!	16/1.2GB/CD Pentium	$2399
7600 120MHZ!	16/1.2GB/CD	$2249
8500 132MHZ!	16/1.2GB/CD	$2899
8500 150MHZ!	16/2GB/CD	$3799

8500 120MHZ! 16/1GB/CD $2699

6100/66	16/500/CD/DOS	$1399	8500/120	16/2GB/CD	$2899
8100/100	8/700	$1999	9500/132	16/1GB/CD/VID	$3099
8100/100AV	16/1GB/CD	$2499*	9500/132	16/2GB/CD	$2899*
7200/75	8/500/CD	$999*	WGS & WORKSTATIONS		
7200/90	8/500/CD	$1329	7250/120	16/1.2G/CD/AS	$3299
7200/90	16/500/CD	$1399	8150/110	16/1G/CD/DT/AS	$5099
7500/100	16/1GB/CD	$1999*	8550/132	24/2G/CD/DT/AS	$6295
			9150/120	16/2G/CD/DAT	$3499

PERFORMAS

6300CD 8/1.2GB/CD CPU,KEYBOARD & MOUSE,14.4Kbps 14" MULTISCAN LOTS OF SOFTWARE $1549

6300CD 16/1.2GB/CD/28.8/15" $1899

580CD 8/800/CD BUILT-IN MONITOR $899

5200CD	8/800/CD/Built-In	$1399	6218CD	16/1GB/CD/15"	$1299*
5215CD	8/1GB/CD/Built-In	$1499	6230CD	16/1GB/CD/Mpg	$2099
6110CD	8/250/CD/No Mon	$769*	630CD	4/250 w/FPU	$799
6116CD	8/700/CD/No Mon	$899*	6320CD	16/1.2GB/CD/15"	$2399
6214CD	8/1GB/CD	$969*	640CD	12/500/CD/DOS	$899*

ProMax Ships Fully Configured Video Workstations · Call For System Quotation

Digital Video Editing

VideoVision PCI Power Mac 7600-120-80-1000-CD $11095
8 GB Array, 17" Monitor, Radius Edit 2.0, Adobe After Effects, Pipeline VTR

Media 100 qx Power Mac 7600-120-80-1000-CD $11095
8 GB Wide Disk Array, 17" Monitor, Extended Keyboard, Adobe Premiere

Targa2000 Power Mac 7600-120-80-1000-CD 11095
8 GB Wide Disk Array, 17" Monitor, Extended Keyboard, Adobe Premiere

Miro DC20 Power Mac 7600-120-80-1000-CD $7115
8 GB Wide Disk Array, 17" Monitor, Extended Keyboard, Adobe Premiere LE

Video Disk Arrays

Rack Mountable RAID Storage For Macintosh & NT

High Performance 19" Rack Mountable RAID Arrays
Hot Swappable Fans and Load Sharing Power Supplies

16 GB Wide RAIDrack Dual SCSI Card+RAID Software $9795
32 GB Wide RAIDrack Dual SCSI Card+RAID Software 14995
64 GB Wide RAIDrack Dual SCSI Card+RAID Software 29495
RAIDrack to 128 GB • **Ask About UltraSCSI**

Cost Effective Solutions

Wide SCSI-2 PCI Disk Arrays For Macintosh

UltraSCSI-3 Wide-40 Coming Soon

4 GB Wide-20 Disk Array w/2940UW+RAID Software $2445
8 GB Wide-20 Disk Array w/2940UW+RAID Software 2995
16 GB Wide-20 Disk Array MW ★★★★ 5745
32 GB Wide-20 Disk Array w/2940UW+RAID Software 11245

30 GB DLT External Backup System $3395

In Stock

Jaz

High Performance Drives For Pre-Press and Audio/Video Applications

New Pricing

1 GB Removable Cartridge Drives For Macintosh

All Systems Include JAZ Cartridges

Internal JAZ Drive 8100-8500-9500 With Bezel $445
External JAZ Drive Complete MacWeek Rated ••••• 495
JAZ + ZIP Combo JAZ and ZIP in Same Cabinet 765
2 GB JAZ Array w/Lido 7 - Host Adapters Optional 1095
1 GB JAZ Cartridges Singles 109ea 4 Packs 99ea

CDR

Built Around The New CDD-2000 Third Generation Philips CD-R Drive

Great Buy

2× x 4× Philips CD-R System For Macintosh

Includes Astarte Toast Pro v3.0

External CD-R System Includes Toast Pro v3.0 $895
External CD-R + JAZ Drive With a JAZ Drive 1395

The JAZ Drive Employs Embedded Servo Technology Making it a Good Source Disk For Writing CD's. JAZ Cartridges Excellent For Transporting Large Files.

Premium CD-R 74 Blank Discs 10 Pack - Each 7.99

For More Information Visit Our Web Page: http://www.scsidisk.com
Call 1-800-977-6629 • Credit Cards Accepted • We Ship Fed Express

proMAX **ProMax Technology**
16 Technology Drive · #106 • Irvine, California 92618
TEL: 714-727-3977 • SALES: 1-800-977-6629 • FAX 714-727-3546

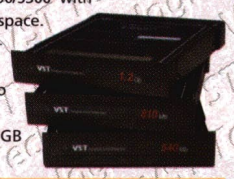
Prices subject to change without notice. Delivery subject to availability. Trade names and are the property of their respective owners.

PowerBook 190/5300 Solutions from VST

Essential products for people who are going places!

Expansion Bay Hard Drives

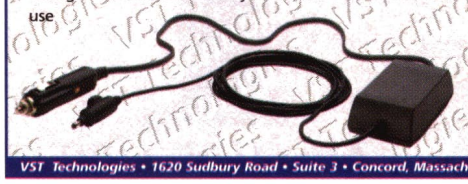
Expand your PowerBook 190/5300 with up to 1.2GB of extra storage space.



- Bootable from the box — just Plug-N-Play!
- Hot swappable - no need to restart, sleep, or shutdown
- 540MB, 810MB, and 1.2GB sizes available

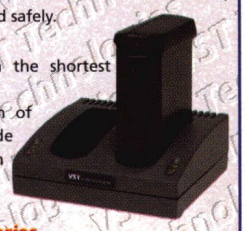
Auto Adapter 5000

- Powers the PowerBook from any cigarette lighter socket
- Charges the internal battery while the PowerBook is in use



Charger 5000 & Internal Batteries

Finally, you can stock up on spare PowerBook 190/5300 batteries, and charge them quickly and safely.



Charger 5000

- Charge two batteries in the shortest possible time
- Charges any combination of Nickel Metal Hydride (NiMH) and Lithium-Ion (Li-Ion) batteries

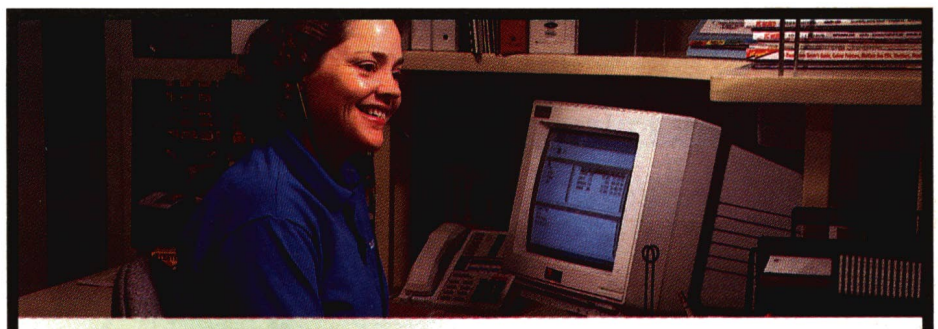
Nickel Metal Hydride Internal 190/5300 Batteries

- Batteries meet or exceed ALL of Apple's specifications
- Average runtimes between 2.5 and 4 hours
- Specially priced Charger 5000 / Battery bundle available

30 DAY moneyback guarantee

VST TECHNOLOGIES

VST Technologies • 1620 Sudbury Road • Suite 3 • Concord, Massachusetts 01742 • (508) 287-4600 • Fax (508) 287-4068 • vstinc@aol.com



"Boxlight sells more electronic projection systems, to more people than anyone. Call to find out why."

Panels from $1,799
Projectors from $3,999
Goodbye Slides!

Call for special price!

ProColor™ 3080

A bright, compact projector with superior color and clarity, use even in normally lit rooms.

- Mac or PC, Video plus Audio
- Only 16 lbs. travel weight
- Clarity sharp as 35 mm slides

As the most trusted name in Presentation Electronics™, we offer:

- Dialog with knowledgeable people who really help
- More than 50 models to choose from, available now
- 30-day money back guarantee

1-800-762-5757 BOXLIGHT™ DIRECT

Education: (800) 689-6676
Resellers: (800) 736-6956
Rental: (800) 736-6954

MW2

The Inc. 500 logo is a registered trademark of Goldhirsh Group, Inc.

Let someone else do it!

Need a data management problem solved but don't have time or resources to do it yourself? Turn the job over to a 4th Dimension® registered developer, an expert at using the 4D® relational database environment for rapid application development. Whether an off-the-shelf or custom solution meets your needs, a 4D developer will get your job done.

Footprints, Inc. 800.635.5280
Custom development for Mac & Windows

Natural Intelligence 800.999.4649
Custom development

Pacific Data Management, Inc. 800.220.6430
Custom development

Softek Design, Inc. 970.728.5252
Accounting software solutions

Contact ACI US for more information on 4D registered developers.

ACI US, Inc. 20883 Stevens Creek Blvd. Cupertino, CA 95104
Tel 408.252.4444. Fax 408.252.0831. http://www.acius.com

BEFORE PERSONAL MACLAN 5.5, THIS WAS THE ONLY FORM OF COMMUNICATION BETWEEN MAC AND PC USERS.

Oxox!

Finally, your MAC's and PC's can speak. Fluently. Because Personal MACLAN 5.5 is the only peer-to-peer software that delivers seamless file and printer sharing between hard drives, PostScript™ printers, CD-ROM drives and tape drives. And at $199, it's the ultimate form of communication for MAC's and PC's.

"Simply the best AppleTalk for Windows product you can buy." MAC User - November 1995

MacUser RAVE November 1995

To order call:
Miramar Systems 800-862-2526

email: sales @ miramarsys.com
www.miramarsys.com

Visit Miramar at these upcoming shows:
Comdex, Canada-Booth #6564
MacWorld, Boston-Booth #460
Seybold, S.F.-Booth #4929

Call for competitive upgrades

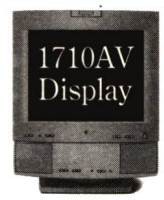
Premier

LATEST Mac S·A·L·E INTERNATIONAL SPECIALS

* USED SPECIALS *

Mac IIsi 5/80
Complete Color System
W/Apple Color Monitor & Kbd.
►$529.00◄

Mac II ci 4/80
Complete Color System
W/Apple Color Monitor & Kbd.
►$599.00◄



1710 AV Display
►$799.00◄

Mac LC 4/80
Complete Color System
W/Apple Color Monitor & Kbd.
►$449.00◄

*USED/*REFURBISHED* Desktop CPU's

Mac Plus	No Kbd or Mouse	$99.00
Mac SE (800K)	2/80	$199.00
Mac II	4/0	$119.00
Mac II	4/40	$129.00
Mac II CX	4/80	$229.00
Mac IIX	4/80	$229.00
Mac IIFX	4/80	$349.00
Mac LC	2/40	$199.00
Mac LC II	4/80	$299.00
Mac LC III	4/120	$349.00
Mac IISI	5/80	$299.00
Mac IISI	5/160	$329.00
Mac IICI	4/80	$329.00
Mac IIVX	5/80/CD	$499.00
Mac Portable	2/40	$299.00
Centris 610	4/500/CD	$499.00
Centris 650	4/500/CD	$599.00
Centris 660AV	8/230/CD	$749.00
Quadra 605	4/160	$499.00
Quadra 610	4/500/CD	$525.00
Quadra 630	4/250/CD	$699.00
Quadra 650	8/500/CD	$849.00
Quadra 660AV	8/500/CD	$799.00
Quadra 700	4/230	$649.00
Quadra 800	8/500/CD	$899.00
Quadra 950	8/500	$1199.00
Pwr Mac 6100/60	8/500/CD	$799.00
Pwr Mac 7100/80	8/500/CD	$1199.00
Performa 200	4/80	$349.00
Performa 400	4/80	$299.00
Performa 410	4/80	$299.00
Performa 520	5/80/CD	$649.00
Performa 550	5/80/CD	$699.00
Performa 600	5/80/CD	$499.00

(Performa's Are CPU Only)

Printers

Portable StyleWriter	$149.00
ImageWriter II	$199.00
Laser Select 300	$299.00
*Personal Laser 320	$449.00
LaserWriter 4/600	$599.00
LaserWriter Pro 630	$999.00
LaserWriter Pro 810	$1499.00

Apple InkJet Printers

New

StyleWriter 1200
with Ink Cartridge & Cable
►$179.00◄

StyleWriter 1500
with Ink Cartridge & Cable
►$289.00◄

* USED *

StyleWriter 2200
►$199.00◄

StyleWriter 2400
►$199.00◄

* NEW *

•Apple CD-300i Plus•
2X Speed Tray Loading
Int. CD-Rom Drive
ONLY - $59.00

•Personal LaserWriter•
NTR Logic Board
With Trade-In - ONLY $79.00

Apple 14" RGB Display	$429
Apple 16" RGB Display	$729
Powerbook Ext. 1.4MB Floppy Drive	$75
Sejin Ext. II Keyboard	$55
Apple Hi-Density Floppy Disks (10 Pack)	$5

*USED/*REFURBISHED* PowerBooks

PB 100	4/40	$379.00
PB 140	4/80	$449.00
PB 145	4/80	$499.00
*PB 150	4/500	$599.00
PB 170	4/80	$699.00
PB 160	4/80	$679.00
PB 165	4/80	$699.00
PB 165C	4/80	$899.00
PB 180	4/80	$799.00
PB 180C	4/120	$1299.00
*PB 520	4/160	$799.00
PB 520C	4/160	$999.00
PB 540	4/120	$1049.00
Duo 210	4/80	$449.00
Duo 230	4/80	$499.00
Duo 250	4/200	$649.00
Duo 280	4/240	$899.00
Duo 280C	4/320	$1099.00
Duo MiniDock		$199.00
Duo Dock		$299.00
Duo Floppy Adapter		$59.00
Duo Battery Recharger		$35.00
PB Battery Recharger		$35.00
PB Int. Fax/Data Mdm		$25.00
PB 14.4 Express Mdm		$79.00
PB AC Adapters		$39.00

Monitors

Apple 13" RGB Display	$250.00
Apple 14" Color Display	$350.00
Apple 16" RGB Display	$649.00
Apple 17" MultiScan	$799.00
Apple Performa Display	$179.00
*Performa Plus Display	$250.00
*Apple 14" MultiScan	$275.00
Apple Two Page Mono	$479.00

Accessories

Apple OneScanner	$249.00
Apple Ext. 1.4MB Floppy	$85.00
Apple PowerCD Drive (3-in-1 CD Drive)	$99.00
Apple Ext. II Keyboard	$75.00
Din 8 Cable	$8.00
Absolute Battery with Recharger Combo (140-180C)	$69.00

We Now Offer A Huge Inventory Of Parts For All Apple Products & Also Offer Extended Warranties

Visit Our Web Site At: www.getnet.com/macsale Or E-Mail Us At: macsale@getnet.com

Limited Quantities/Prices subject to change
Prices represent a Discount - off Full Price
Returns at discretion of Mgmt/15% Restocking fee

1-800-729-7031

1150 W. Alameda Dr, Suite 1 & 2
Tempe, AZ 85282
(602) 858-0900 / Fax: (602) 858-0811

WE WANT TO BUY YOUR NEW/USED MAC EQUIPMENT

APPLE

9500/120	16/1/CD	$3499
9500/150	0/0	$3299
9500/150	16/2/CD	$4399
9500/132	16/1/CD/V	$3899
8500/120	16/1.0/CD	$3079
8500/120	16/2.0/CD	$3379
8500/150	16/2.0/CD	$4289
7600/120	16/1.2/CD	$2689
7200/120	8/1.2/CD	$1769
5300/100c	16/750	$2799
5300/100cs	8/500	$1889
5300/100cs	16/750	$2399
5300/100ce	32/1.1	$3989
2300/100c	8/750	$2799
2300/100c	20/1.1	$3799
190/66	8/500	$1399
190/66cs	8/500	$1499

We carry the entire Apple computer and peripheral product line as well as most popular third party brand products at ultra-competitive prices with free technical support on everything we sell. MOST items are IN STOCK with same day shipping available on orders placed before 3 pm E.S.T. Custom configurations are No problem!

MEMORY

LIFETIME WARRANTY

SIMM 2k*72pin 60ns

4 MB.....$29
8 MB.....$53
16 MB...$113
32 MB..$227

DIMM 2k*168pin 60ns

8 MB....$65
16 MB..$119
32 MB..$229
64 MB..$469

30Pin SIMM 2k 60/70ns

1MB.....$15
2MB.....$25
4MB.....$39
16MB.....$189
4MBPAL.....$59

*30 DAY MONEY BACK GUARANTEE
*GOVT & EDU NET POs WELCOME
*60/70ns SPEED CHIPS
*NO CREDIT CARD SURCHARGES
*2K REFRESH RATE
*WE BUY MEMORY CALL US LAST
*PRICES SUBJECT TO CHANGE WITHOUT NOTICE

*WE WILL BEAT ANY PRICE

CALL OR LOG ON FOR LATEST PRICING!

POWERBOOK RAM 500/5300/190/2300

4 MB.....$89
8 MB.....$129
16 MB.....$179
32 MB.....$379
48 MB.....$629

L2 CACHE

256k - 61/71/81xx....$69
256k - 72/75/85xx....$89
512k - 72/75/85xx..$139

VRAM

1MB DIMM 7/8/9xx....$47
256k SIMM 61/71/81...$17
512k SIMM 61/71/81...$27

SOURCE COMPUTING

800/900-4599

Voice 954/725-9777 • Fax 954/725-9977
http://www.sourcecomp.com

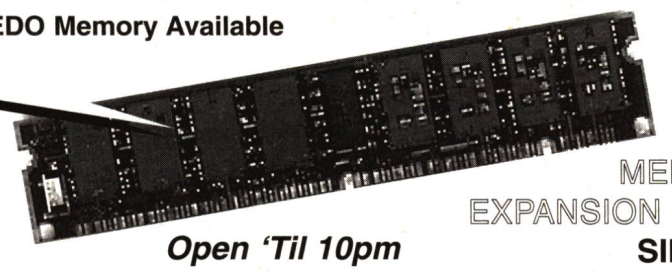
VISA MasterCard FedEx Federal Express American Express Cards NOVUS

MAC MEMORY

LIFETIME GUARANTEE

SAVE BIG!

EDO Memory Available



MEMORY EXPANSION MADE SIMMple

Open 'Til 10pm

SIMMs - DIMMs - VRAM - CACHE - CPUs - FPUs - PowerBook Memory

University, Government & Corporate P.O.s w/ Approved Credit

DMS

Data Memory Systems, Inc.
24 Keewaydin Drive
Salem, NH 03079
Tel: 603-898-7750
Fax: 603-898-6585
Web Page: www.datamem.com/datamem

1-800-662-7466

"Is There A High-Performance Choice?"

Yes

Reply's 5x86 Upgrade Card $295

Upgrade your Reply or Apple DOS Compatibility Card

The Cyrix 5x86™ processor offers P75 compatibility with higher performance and better value. Cyrix 5x86 gives you the features you need:

- Proven Windows 95, Windows 3.x and DOS compatibility
- Energy-saving chip design
- Advanced 5th-generation architecture

Increase the performance of your Reply DOS on Mac Card or Apple DOS Compatibility Card by up to 80%.

- Process instructions at 100MHz with dedicated Cyrix 5x86 processors
- Simply plug the Reply Upgrade Card into your existing compatiblity card

Cyrix Advancing the Standards http://www.cyrix.com

Cyrix 5x86

Designed for Microsoft Windows 95

reply™

Call Reply Corporation today at
800-801-6898
http://www.reply.com

Cyrix is a trademark and the Cyrix 5x86 logo is a trademark of Cyrix Corporation.
© 1996 Cyrix Corporation. All rights reserved. All brands and names are the property of their respective owners.

Diamond Computer Resources, Inc.

Standard & New 72 Pin SIMM's
PowerBook Memory
168 Pin DIMM's
We Buy New & Used SIMM's

16MB 72 PIN.... CALL
4X8 30 PIN.....$119

LifetimeWarranty MC/Visa No Surcharge
Corp.,Gov.&Univ.PO's Accepted
Fax 512-219-1132

800-541-7126

13377 Pond Springs R., Ste 105
Austin, TX 78729 • 512-219-1222

MEMORY

NEW MEMORY! • WE SELL QUALITY • QUICK SERVICE • LIFETIME WARRANTY!
CREDIT CARDS WELCOMED - NO EXTRA CHARGES • WE DO NOT USE / BUY OLD CHIPS

30 PIN	72 PIN SIMMs	168 PIN DIMMs
70 ns speed	70 / 60 ns speed	60 / 70 ns speed
1 MB (4) / 4 MB	4 MB / 8 MB / 16 MB / 32 MB	8 MB / 16 MB / 32 MB
$79 / $59	$29 / $55 / $125 / $245	$69 / $129 / $249

800.544.6082 ext 617

DON't buy from the "BOTTOM" of the barrel
Prices may change due to memory market fluctuations

415.929.1578 - FAX
1592 Union Street #91
San Francisco, CA 94123

BOSS Micro Electronics

WE ONLY SELL NEW MEMORY

Classified

Classified

Sacrificial RAM

All memory 100% tested and back with lifetime warranty.

DIMMs		72-pin SIMMs		Cache Cards		Syquest	
8MB	75	4MB	45	256K	69	Ez135 Drive	119
16 MB	155	8MB	69	256K DIMM	89	EZcart	20
32MB	299	16MB	149	512K DIMM	159	**Iomega**	
64MB	599	32MB	289	**PB5300 RAM**		Jaz 1.0 Drive	429
Media		1mb 30pin	20	24MB	349	Jaz 1gb Cart	115
230 Opt Cart	15	4mb 30pin	45	32MB	599	Zip Drive	195
200 SQ Cart	49					100mb Cart.	19
128 Opt Cart	14						
88mb	39						
44mb	34						

BOTTOM LINE DISTRIBUTION

No credit card surcharge.

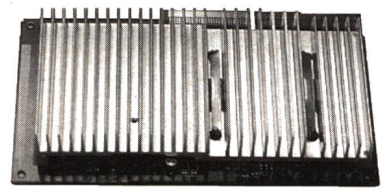
Prices subject to change. Not responsible for typos. Shipping via 2 day air, 5lbs for $5.00
Visa, Mastercard and American Express accepted. Local #512-892-4070 Fax# 512-892-4455

http://www.blol.com/ 800 347-1934

PowerSource 604 processor card

160Mhz
w/604 trade-in **$699**
w/601 trade-in **$899**

150Mhz
w/604 trade-in **$599**
w/601 trade-in **$799**



7500 / 7600 / 8500 & 9500

7600 150 / 160	16 / 1.2 / cd	$3,399 / $3,599
8500 150 / 160	16 / 1.0 / cd	$3,599 / $3,799
9500 150 / 160	16 / 1.0 / cd	$3,599 / $3,799

POWERtools http://www.pwrtools.com
800-891-4307
Local: 512-891-0646
Fax: 512-476-6399

MEMORY

Guaranteed Lowest Prices
Life Time Warranty

- 30 Pin SIMMS
- 1MB—16MB
- 72 Pin SIMMS
- 1MB—64MB
- 168 Pin DIMMS
- 4MB—64MB
- All Power Books
- All Printers
- VRAM, DIMM, CACHE

WE BUY MEMORY
We accept P.O.'s from government, schools & qualified firms.

Eritech International
1-800-808-6242
818-244-6242 818-500-7699

L2 CACHE

PCI PMac72/75/76/8500
256k $95
512k $139 HOT!

Nubus PMac 61/71/8100
256k $59

VRAM

PMac 61/71/8100
256k $11

PMac 72/75/76/8500
1mb $55

PMac 9500
2mb ATI $159

OtherWorldComputing

Serving the Mac Universe Since 1988

On the Web at http://www.macsales.com

30-DAY MONEY BACK GUARANTEE ON ALL HARD DRIVES. SYSTEM 7.1 INSTALLED & 30MB OF FREE SOFTWARE. EXTERNAL VERSION FEATURES PLATINUM CASE WITH DUAL SCSI PORTS, PUSH-BUTTON SCSI ID & 40WATT POWER.

No Credit Card Surcharge!

SIMMS

72 PIN 2K Refresh

4mb	70ns $35	60ns $39	NEW!	
8mb	70ns $59	60ns $65		LIFETIME WARRANTY
16mb	70ns $119	60ns $124		
32mb	70ns $249	60ns $255		

30 PIN SIMMS

1mbx8	Mac 80ns	$13
2mbx8	Mac 80ns	$26
4mbx9	Mac&PC	$49

DIMMS

60ns 2K Refresh

8mb	$79
16mb	$135
32mb	$249
64mb	$499

The Time to Buy Memory Is NOW!

QUANTUM HARD DRIVES

CAPACITY	INTERNAL	EXTERNAL
TRAILBLAZER 840MB 12MS	$179 MacUser	$239
FIREBALL 1.2GIG 9.8MS	$269	$319
SATURN 2GIG 8.5MS	$499	$549
ATLAS 2GIG 8MS	$599	$649
GRANDE PRIX 4.3GIG 8.6MS	$799	$849
OTHER DRIVES IDE/PBOOK/PERFORMAS/SEAGATE,ETC.		$CALL

SPECIAL! LIMITED SUPPLY!
Quantum GO-127mb SCSI 2.5" Powerbook Hard Drives
ONLY $89 WOW!

NEW POWERMACS

7200/120	8/1.2GB/CD	$1679
7600/120	16/1.2GB/CD/L2	$2399
8500/132	16/1.2G/CD/L2	$3049
8500/132	32/2000/CD/L2	$3359
8500/150	16/1.2/CD/L2	$3999
9500/132	16/1000/CD/L2	$3499
9500/150	16/1.2G/CD/L2	$4199

** INCLUDES 2MB ATI VIDEO CARD
Call for Custom Configs & PC Compatable CPUs and Cards

Performa 6300	100Mhz	$1599
Performa 5300	100Mhz	$1699
Performa 6320	120Mhz	$2299

KEYBOARDS

Apple Extended Keyboard II	$149
Apple Design Keyboard	$80
MacAlly Extended Keyboard	$59

OWC 120-210 MHZ. AfterBurner604 POWER MAC ACCELERATOR

Now you can accelerate your 72/75/76/85/9500 PCI PowerMac from 120 up to 210 Mhz! Unlike other accelerators, once installed, the speed of the OWC AfterBurner604 can be easily adjusted without removing the processor card!

NEW! $59.95

Up To 210 Mhz.!

OWC SPECIALS

StyleWriter 2400 (New!)	$279
StyleWriter 2400 (Refurbished)	$189
Apple 15" Multiscan (Refurbished)	$259
Magnum 14.4 Fax Modem (New!)	$59

MONITORS

Apple 14" Multiscan	$259
Apple 15" Multiscan	$399
Apple Multiscan 1705	$699
Apple Multiscan 1710	$899
Apple Multiscan 1710AV	$999
Apple Multiscan 20"	$1899
ViewSonic 17GA	$749
Sony SX1 15"	$499
Sony 17SF2	$899
Sony 20SE1	$1899

800-275-4576

OWC now ships FedEx Monday-Saturday to Better Serve Your Needs!

Other World Computing
224 West Judd Street
Woodstock, IL 60098
International: (815) 338-8685
Fax: (815) 338-4332

Prices and specifications subject to change w/o notice.15% restocking fee on returned merchandise unless otherwise noted.

MPD

Low Prices Guaranteed

Memory Special !!

4MB, 72-pin	.48.
8MB, 72-pin	.72.
16MB, 72-pin	.135.
32MB, 72-pin	.276.
4MB Dimm	.65.
8MB Dimm	.72.
16MB Dimm	.129.
32MB Dimm	.275.
64MB Dimm	.735.

Please call for PowerBook memory prices.
Call for New PowerMac Prices !!!

Visit our Web Site at: MPDnet.com

Prices subject to change without notice.
Prices reflect 3% Cash Discount.
International orders welcome.

800-993-5673

JP MICRO

JP MICRO PRODUCTS
2737 S CROODY WY #K
SANTA ANA, CA 92704
VOICE: 714-751-8401
FAX: 714-751-8633

DIMMS
8MB 16MB 32MB 64MB 128MB

SIMMS
4MB 8MB 16MB 32MB 64MB

CACHE
256K 512K 1MB SIMM & DIMM

VRAM
256K 512K 1MB MAC & PC

CALL FOR POWERBOOK MEMORY!
WE CARRY ALL LASER & LAPTOP MEMORY.

CALL FOR THE BEST PRODUCTS AND PRICES.GUARANTEED!

800-610-6227

LIFETIME WARRANTY

DATA MICRO COMPUTER INC.

800-345-1234
TEL (310) 398-3300 • FAX (310) 391-2488
DEALERS & INTERNATIONAL SALES WELCOME!
Govt, Univers.'s & Corp. P.O.'s welcome

APPLE QMS LASERMASTER TOSHIBA RASTEROPS GCC TECHNOLOGIES SUPERMAC HEWLETT PACKARD UMAX radius IBM

POWERMAC

6100/66 8/500	695.
7100/80 8/700/CD	In stock
7200/75 8/500/CD	995.
7200/90 16/500/CD	1269.
7200/120 8/16/CD	1675.
7500/100 16/500/CD	1750.
7600/120 16/1 Gig/CD	2275.
8100/110 16/2Gig/CD	2995.
8500/132 16/2Gig/CD	3150.
8500/120 16/1Gig/CD	2895.
8500/150 16/2Gig/CD	3895.
9500/120 16/1Gig/CD	2695.
9500/120 32/4Gig/CD	3665.
9500/132 16/1Gig/CD	3150.
9500/150 16/2Gig/CD	3850.

POWERBOOKS

5300CE 32/1Gig	3795.
5300C 16/750	2749.
5300C 8/500	2285.
5300CS 16/750	2295.
5300CS 8/500	1840.
5300 Mono 8/500	1155.
190CS 8/500	1295.
190 8/500	1280.
540C 4/320	2095.
520C 4/160	1245.
520C 4/240	1345.
520 4/240	895.
150 4/240	595.
Call for memory	
Platinum pro	495.

PERFORMAS

476 4/320	595.
550 5/160CD	795.
575 5/250CD	995.
578 8/320CD	1175.
5200 8/800/CD	1395.
630 4/250	655.
631 8/500CD	675.
635 4/250CD	695.
637 8/350CD/15"	1297.
638 TV/8/350CD15"	1252.
6200 16/1Gig/CD	1595.
6290 8/1.2Gig CD	1995.
6220TV 16/1GigCD	1699.
Centris 650 8/500	895.
640 DOS 12/500CD	1495.

RADIUS

15" Gray Scale	295.
15" Pivot/Gray Scale	449.
20" TPD/20GS	695.
21" TPD/21GS	777.
Precision Color/17	745.
Intellicolor Disp/20	1299.
Intellicolor Disp/ 20E	1399.
Pressview 21T	CALL
SuperMatch 17XL	695.
SuperMatch 20 Plus	1095.
SuperMatch 21 Color	1295.
SuperMatch 21TXL Video	1395.
vision Studio	Call.
SuperMac 20" Trinit.	1295.
Spectrum 24PDQ Plus	495.
E-Machine Futura IISX	245.
E-machine Futura IILX	295.

APPLE PRINTERS

S/300	$495.	16/600	$2095.
S/360	$1045.	Per320	$599.
4/600	$695.	Per300	$399.

AGFA

Arcus $1995

POWERBOOK PROCESSOR CARD UPGRADE KIT

UPGRADE POWERBOOK 500 SERIES TO POWERPC 100MHZ

$895

iCN

INNOVATIVE COMPUTER & NETWORKING INC.

DUO2300 UPGRADE KIT

From Duo 2XX Series to Duo 2300 W/PPC 603e 100Mhz Processor

$995

9500/150
16/2GB/CD
$3849

9500/132
16/1GB/CD/ATI*
$2990

8500/120
16/1GB/CD*
$2765

7600/120
16/1.2GB/CD
$2290

POWERMAC

9500/132	16/2G/CD*	$3225
9500/120	16/1G/CD/ATI*	$2699
8500/150	16/2G/CD	$3690
8500/132	16/1.2G/CD	$2990
7500/100	16/1G/CD*	$1890
7200/120	8/1.2G/CD	$1590
7200/90	16/500/CD	$1339
7200/75	8/500/CD	$1099
8100/110	16/2G/CD*	$2590
7100/80	8/700/CD*	CALL
6100	8/500/CD*	$999

POWERMAC UPGRADE

With Original Apple Logic Board & Parts

Quadra 950, 900 to
WGS 9150/120 $1750

Workgroup Server 8150/80/110 to
WGS 8550/132 $2345

PowerMac 8100s to
8500/120/132/150 $1690-2090-2290

120/132MHz 604 Processor (8500-9500) to
150 MHz 604 Proc. $845-1100

75/90MHz 601 Processor (7200) to
120 MHz 601 Proc. $650-750

PowerMac 7200 to
7600/120 $1490

Performa, Quadra 630 to
6200/75Mhz-6300/100 Mhz $495-795

Centris, Quadra 610, 650 & 660 to
6100 & 7100 CALL

LC 520 & LC 550 (68030) to
LC 575 68LC040/33MHz $595

Powermac 8100/80, 8150/80 to
8100/100/110 $990-1590

LARGEST WEST COAST INDEPENDENT Apple RESELL, PARTS & SYSTEMS

NUBUS SYSTEMS

Q800	8/230/CD	$959
Q840AV	8/230/CD	$1090
Q660AV	8/230/CD	$795
Q650	8/230/CD	$989

MONITOR

APPLE 14" Multi	$229*/299
APPLE 15" Multi	$279*/349
APPLE 1705 Multi	$689
APPLE 1710Vision Multi	$859
APPLE 1710AV Multi	$939
APPLE 20" Multi	$1690
SONY, NEC, RADIUS, ETC.	CALL

PRINTER

LW 4/600	$795
LW Select 360	CALL
LW 16/600	$2089
SW 1200	$185
SW 2400	$285
SW 2500	$359

GCC PRINTER

Elite600	600dpi/10ppm/8.5x11	$1160
XL608	600dpi/8ppm/11x17	$2399
XL808	800dpi/16ppm/11x17	$3079
XL616	600dpi/16ppm/11x17	$2679
XL1208 SuperSize	1200/8/12x20	CALL

* Demo/Refurbished
•Prices Subject to Change Without Prior Notice•
•All Prices Reflect 3% Cash Discount•

TRADE IN YOUR OLD MAC FOR A NEW MAC

310-445-6600
FAX: 310-445-6611
Mon-Fri 8am-5pm PST

POWERBOOK

5300c	16/750	$2659
5300c	8/500	$2235
5300cs	16/750	$2249
5300cs	8/500	$1799
150	4/240	$589
520	4/240	$799
520c	4/160*	$1299
540c	4/320*	$2059
Duo2300c	20/1G/M	CALL

Performa 580
8/800/4x-CD $929

6320 16/1.2G/CD/Mod/15"Mon/KB $1995

APPLE PARTS

DOS COMPATIBLE CARDS (PCI)

586/100MHz/8MB RAM/7"	$859
PENTIUM/100MHz/8MB RAM/12"	$995
1.44 Floppy Drive	$125
9500 LogicBoard	$850
8500 LogicBoard	$795
8100/110 LogicBoard	$1295
Q840AV LogicBoard	$595
Q800 LogicBoard	$495
120Mhz 604 Proccessor	$690
132Mhz 604 Proccessor	$850

ATTO Technology
NuBus PCI SCSI-2 Fast With ACCELERATORS

ExpressPCI/Ultra Wide SC	$309/339
ExpressPCI/Ultra Wide MC	$659/699
SiliconExpress IV NUBUS	$599
ExpressStripe Raid-0 PCI	$199

iCN On-Line
Internet: http://www.icni.com
E-mail: icn@icni.com

ASK ABOUT OUR BUSINESS LEASING

7200/120
16/1GB/CD
$1875

Performa 6300
100MHz/16/1.2G/CD
15" Mon/ 28.8 Mod/Kybrd
$1890

Performa 6200
100MHz/8/800/4x-CD
14" Monitor/Keyboard
$1280

PowerBook 5300ce
117 MHz/32/1.1GB
$3790

PUSH, PULL OR DRAG IT SALE!

GET A ***$400 MINIMUM TRADE-IN*** ON YOUR 25MHZ '030 COLOR MAC SYSTEM
OR ***$400 MINIMUM TRADE-IN*** ON YOUR POWERBOOK!

DESKTOP TRADE-INS: working units only, '030 processor@25Mhz or faster, minimum configuration 4/80, keyboard, mouse & color monitor

POWERBOOK TRADE-INS: working units only, minimum 4/80 configuration, with floppy

SHREVE Systems

HTTP://www.shrevesystems.com

special

special

special

Performa 630-635

- factory refurbished
- 33MHz MC68LC040
- 5MB RAM
- 250MB hard drive
- 2X Apple CD300i
- AppleDesign Extended Keyboard
- 14" Performa Plus Display
- Global Village Bronze Faxmodem

$1099.00
- $400 TRADE-IN
YOUR COST $699

PowerMac 5200/75LC

- factory refurbished
- 75MHz PowerPC™ 603
- 8MB RAM
- 500MB hard drive
- 4X Apple CD600i
- AppleDesign Extended Keyboard
- 14" Apple Display
- Global Village Bronze Faxmodem
- Built-in speakers

$1499.00
- $400 TRADE-IN
YOUR COST $1099

Performa 6200/75

- factory refurbished
- 75MHz PowerPC™ 603
- 8MB RAM
- 1GB hard drive
- 4X Apple CD600i
- AppleDesign Extended Keyboard
- 15" Apple MultiScan Display
- Global Village Bronze Faxmodem

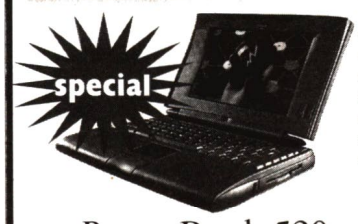
$1399.00
- $400 TRADE-IN
YOUR COST $999

PowerMac 6100/60

pictured with 14" AV

- factory refurbished
- 60MHz PowerPC™ 601
- 8MB RAM
- 250MB hard drive
- 2X Apple CD300i
- AppleDesign Extended Keyboard
- 14" Performa Plus Display
- Global Village Bronze Faxmodem

$1299.00
- $400 TRADE-IN
YOUR COST $899



special

PowerBook 520

- factory refurbished
- 25MHz MC68LC040
- 4MB RAM
- 240MB hard drive
- 4-bit gray, passive matrix
- maximum RAM: 36MB
- 16-bit stereo sound output

$949.00
- $400 TRADE-IN
YOUR COST $549

$69

SyQuest 44

REFURBISHED
3RD PARTY CASE

$249

Color StyleWriter 2400

FACTORY REFURBISHED
$50 Instant Rebate if purchased with a system!

DIGITAL AUDIO RECORDING

$79

Pro AudioSpectrum™ 16

For Macintosh LC series, Quadra 605, 630 series

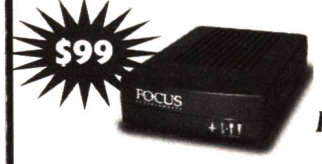
From MediaVision, the Pro AudioSpectrum 16™ is the state-of-the-art in audio enhancement for your Macintosh LC, LCII, LCIII, or Quadra 605. This audio adapter delivers 16-bit stereo digital audio recording and playback to 44.1KHz, has built-in MIDI in and out ports, and a 4-channel software controllable input mixer. System 7.0 or later required

$99

**with trade-in*

Color StyleWriter Pro

REFURBISHED
Trade-in your working StyleWriter or StyleWriter II for this incredible price!
$249 WITHOUT TRADE-IN



$99

FOCUS enhancements

L•TV Portable Pro

YOUR BUSINESS PRESENTATION'S BEST FRIEND

L•TV Portable Pro is an external scan converter that allows any Macintosh with a video port to use a standard TV monitor as a display device (and/or a VCR as a recording device). It converts the computer image from an RGB video signal to a standard NTSC signal.

Apple QuickTake 100

$299

Duo 230 4/80

$499

Quadra 840AV 0/0

$999
refurbished

$99 Bundle

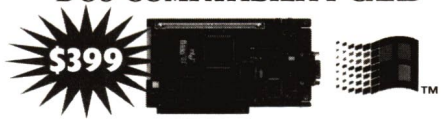
- System 7.5 CD
- ClarisWorks 3.0 CD
- internal 1/2 height 160MB HD
- Global Village Bronze modem

$69

Bernoulli 90Pro

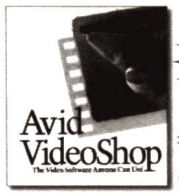
Transportable
REFURBISHED

DOS COMPATIBILITY CARD



$399

FOR POWERMAC OR PERFORMA 6100
Includes 486DX2/66 Processor



$49

Avid VideoShop®3.0
CD-ROM

THE VIDEO SOFTWARE ANYONE CAN USE™

It's easy to record, assemble, and edit your own QuickTime movies with VideoShop®. Apply special effects, add soundtracks, titles, transition effects, it's all here!

$199

Hewlett-Packard DeskWriter

REFURBISHED

LaserWriter 4/600PS

$649 refurbished
$799 new
Toner Included

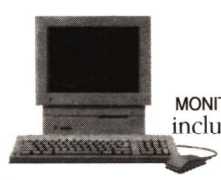
$649

PowerBook 150 4/120
NEW

$199

800/840AV/8100

POWER SUPPLIES
GENUINE APPLE

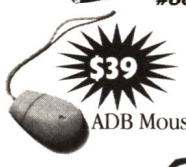


IIsi 5/160

$549

MONITOR, MOUSE AND KEYBOARD
includes ClarisWorks bundle

1.44 DISK DRIVES
New $129
#661-0474 #661-0121



$39

ADB Mouse II

LC 2/0 CPU

no floppy or mouse
$99

LCII 4/0 CPU

no floppy or mouse
$149

SHREVE Systems

HTTP://www.shrevesystems.com

1•800•227•3971

• ALL CREDIT CARDS STRICTLY VERIFIED •

FAX (318) 424.9771 • Technical Support (318) 424-7987
Customer Service (318) 424.9791 • Purchasing/Information (318) 424.9791
1200 MARSHALL STREET • SHREVEPORT, LOUISIANA 71101

Macintosh CPUs

LC550 4/160/CD	$749.
LC580 8/800/4XCD NEW	$1199.
Performa 631 8/500/CD	$829.
Performa 637 8/250/CD	$849.
Performa 6100 8/250/CD	$949.
Performa 6200 8/1GB/CD	$999.
Centris 650 4/0	$649.
Quadra 605 4/160 NEW	$679
Quadra 660AV 4/0	$649.
Quadra 840AV 0/0	$999.
Quadra 800 8/0	$999.
PowerMac 5200/75LC 8/500/CD	$1499.
PowerMac 9500/120 16/1GB/CD	$2699.
PowerMac 9500/132 16/2GB/CD	$2999.
WGS 9150/120 16/2GB NEW	$2999.

Logic Board Upgrades

Personal NT to NTR printer upgrade	exch. $69
LaserWriter IINT/NTX to IIf	exch. $399 NT/299 NTX
Mac II or IIx to IIfx	exch. $399
Centris 610 to Quadra 660AV	exch. $299
Quadra 660AV to PowerMac 6100/60	exch. $599
Quadra 800/840AV to PowerMac 8100/80	exch. $999
Quadra 800 to Quadra 840AV	exch. $299
Quadra 650 to PowerMac 7100/66	exch. $799
LC550 to LC575	exch. $499
IIvx or IIci to Centris 650	exch. $299
Performa 630 to PowerMac 6200	exch. $699

Accessories

630 Series Card Special

TV Tuner Card	$179.
Apple OneScanner	$379.
Apple Color OneScanner	$479.
UMAX UC840 Scanner NEW	$499.
HDI External 1.44 for PowerBooks	$149.
IIsi NuBus Adapter	$99.
Bernoulli 90PRO external	$69.

Video Cards

Apple 8-bit Card	$99.
RasterOps 24MX	$199.
RasterOps PaintBoard Turbo new	$299.
E-Machines DoubleColor SX new	$149.
SuperMac PDQ 8•24	$349.
7100/8100 series AV Card	$499.
6100 series AV Card with adapter	$599.
PowerMac HPV VRAM Card	$299.

Monitors

Apple 14" A/V NEW	$399.
Apple 14" MultiScan NEW	$299.
Apple 13" Trinitron	$269.
Apple 15" MultiScan	$329.
Apple 15" MultiScan NEW	$399.
Radius Color Display/21	$1299.
*Hewlett-Packard 17" with card	$649.
*Hewlett-Packard 20" with card	$899.

Printers

Apple StyleWriter 1200	$179.
Apple Personal LaserWriter LS	$279.
Apple Personal LaserWriter 300	$299.
Apple Personal LaserWriter 320	$449.
Apple LaserWriter Select 300 NEW	$399.
Apple Personal LaserWriter NTR	$699.
Apple LaserWriter IINT	$699.
Apple LaserWriter IINTX	$899.
Apple LaserWriter Pro 630	$1199.
Apple LaserWriter Pro 630 NEW	$1499.
Apple Color Printer NEW	$699.
Apple Color StyleWriter Pro	$249.
HP DeskWriter 310 NEW	$229.
Hewlett-Packard DeskWriter	$199.
Hewlett-Packard DeskWriter C	$219.
Hewlett-Packard DeskWriter 550c	$249.

Laser toner cartridges sold separately

PowerBooks

PowerBook 170 4/80	$799.
PowerBook 180 4/80	$999.
PowerBook 160 4/80	$699.
Duo 230 4/80	$499.
DuoDock Type I	$399.

Logic Boards

Quadra 840AV	$499.
Quadra 800	$449.
Quadra 900	$449.
Quadra 950	$549.
Quadra 660AV	$399.
Centris 650	$249.

Products are refurbished unless indicated as "new". Prices reflect a 2% cash discount and are subject to change without notice. Returns subject to a 15% restocking fee.

Classifieds

TRY OUR NEW INTERNET SITE! http://www.Compu-America.com

5300CE 117MHZ! 32/1.2G $3799
5300C 100MHZ! 8/500 $2399
5300CS 100MHZ! 16/500 $2099
5300CS 100MHZ! 8/500 $1949
5300 100MHZ! 8/500 $1299

100MHz 603e PPC CPU
2 PCMCIA SLOTS Standard
NEW DESIGN, New Look
Ion Lithium Battery
5 Hour Battery Life

We are OPEN Saturday!

SALES CALLS (310) 446-1771
FAX BIDS (310) 475-7744

COMPU AMERICA
"The Computer Specialist"

Come see our huge showroom!

10435 Santa Monica Blvd, LA CA 90025

1-800-533-9005

Performa
6300CD 8/1G/CD $1499
6290 8/1G/CD $1599
6320 16/1G/CD $2099
6200 8/800/CD $1299
5200 8/800/CD $1399
580 8/800/CD $899

9500/150MHZ

150MHz CPU
Lots of Drive Bays
Upgradeable 604
7 PCI slots, Tower!
Built in EtherNet
4X CD-ROM
16/2GIG/4XCD $3899

8500/150MHZ

150MHz PPC CPU
Audio/Visual Capable
Built in Video Capture
Supports 24bit Color
3 PCI Slots
256K Cache
16/2GIG/4XCD $3799

8500/132MHZ

132MHz PPC CPU
Full Tower Case
512K CACHE
Supports 24bit Color
6 PCI Slots
Upgradeable CPU
16/1.2GIG/4XCD $2899

7600/120MHZ

120MHz PPC CPU
Audio/Visual Capable
Built in Video Capture
Supports 24bit Color
3 PCI Slots
256K Cache
16/1.2G/4XCD $2299

7200/120MHZ

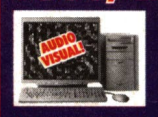
120MHz PowerPC
256K CACHE Included
Built in Video Card
3 PCI Slots
Desktop Case
System 7.5
16/1.2G/4XCD $2399
PENTIUM INCLUDED!

7200/120MHZ

120MHz PowerPC
256K CACHE OPTIONAL
Built in Video Card
3 PCI Slots
Desktop Case
System 7.5
8/1.2G/4XCD $1699

9500/132MHZ

132MHz PPC CPU
Full Tower Case
512K CACHE
Supports 24bit Color
6 PCI Slots
16/1GIG/4XCD $2999
16/2GIG/4XCD $2899*

9500/120MHZ


120MHz PPC CPU
Full Tower Case
512K CACHE
Supports 24bit Color
6 PCI Slots
16/1GIG/4XCD $2499
FACTORY REFURB!

8500/120MHZ

120MHz PPC CPU
Audio/Visual Capable
Built in Video Capture
Supports 24bit Color
3 PCI Slots
16/1GIG/4XCD $2699
16/1GIG/4XCD $2399*

7500/100MHZ

100MHz PowerPC
Upgradebale CPU
Video In
3 PCI Slots
Desktop Case
System 7.5
16/500/4XCD $1799*
16/1GIG/4XCD $1899*

7200/90MHZ

90MHz PowerPC
Up to 136MB RAM
Built in EtherNet
3 PCI Slots
Desktop Case
8/500/4XCD $CALL
16/500/4XCD $CALL

7200/75MHZ

75MHz PowerPC
Up to 136MB RAM
Built in EtherNet
3 PCI Slots
Desktop Case
8/500/4XCD $1049
16/500/4XCD $1149

PowerBooks DUO
280 4/240 $799
280 12/240/FAX $1399
280C 4/500 $1399
280C 12/320/FAX $1899
2300C 8/750 $2495
2300C 20/1.2G/FAX $2899

PowerBooks
150 4/240 $599
150 8/240 $699
190CS 8/500 $1499
520 4/240 $799
520C 4/240 $1099*
540C 4/320 $1999*
540C 12/320/FAX 2599*

Monitors
Sony 15SF2 / 17SF2	399/769
Sony 17SE2 / 20SF2	999/1599
NEC 15XV/17XV	499/779
Apple MultiScan 14"	289/249*
Apple 15"	379/299*
Apple 1705 17"	699
Apple 17" 1710AV w/spkr.	949
Apple 20"	1799

Apple Printers
StyleWriter 1200	$199
StyleWriter 2200	$299
StyleWriter 2400c	$299
StyleWriter 2500c	$379
LW Writer 300	$499
LW Writer 320	$599
LW 4/600PS	$799
LW 12/600/PS Clr	$5395

PerformaRefurb.
6116 8/700/CD $1049*
6115 8/350/CD $999*
640DOS 12/500/CD $1299
631 8/500/CD 949*

MEMORY BLOWOUT!
8 MEG DIMM	$99
16 MEG DIMM	$149
32 MEG DIMM	$249
64 MEG DIMM	$479

All prices are cash discounted. Prices subject to change without notice. Not responsible for typos. Government, Universities, and Fortune 1000 company P.O.'s are welcome.

Apple

Infinity Micro

GCC TECHNOLOGIES Seagate radius DAYSTAR DIGITAL

HEWLETT PACKARD UMAX

one stop shopping for all your software & hardware needs

800•589•1234

POWERMACS		POWERBOOKS		PERFORMA	
6100/66 8/500/CD	1325	150 4/120	1025	550 5/160/CD w/ 14"	775
6100/66 16/500/DOS	1995	520 4/240	1395	578 8/250/CD	1099
7100/80 8/700/CD	1675	520C 4/240	1695	635 5/250/CD w/ 15"	1175
7100/80 AV 16/700/CD	1995	540C 4/320/R	2895	637 5/700/CD w/ 15"	1195
8100/100 8/700	2195	5300/100 8/500	1945	638 8/1G/CD w/ 15"	1445
8100/100 16/700/CD	2685	5300C 16/750	3995	640 DOS 16/1.0/CD	1795
8100/110 16/2.0/CD	2995	5300CS 8/500	3295	6200 16/1.0/CD	1799
7200/75 8/500/CD	1549	5300CS 16/750	3095	6300 16/1.0/CD/ 15"	2495
7200/90 16/500/CD	1949	190CS 8/500	2095	VIDEO CARDS	
7500/100 16/500/CD	2569	190 8/500	1745	PrecisionColor 8/1600	459
7500/100 16/1.0/CD	2769	MONITORS		Thunder IV GX 1600	1895
8500/120 16/1.0/CD	3995	PrecisionColor 17	775	Thunder IV GX 1360	2245
8500/120 16/2.0/CD	4375	PrecisionColor 21	1475	Thunder IV GX 1152	2775
9500/120 16/1.0/CD	4145	PrecisionView 17	875	Thunder Color 30 1600	1575
9500/132 16/2.0/CD	4595	PressView 17 SR	1875	Thunder Color 30 1152	1895
PRINTERS		Intellicolor 20e	1649	Thunder 24 GT	1299
LW 4/600PS	1135	SuperMatch21TXL	1795	VideoVision Studio 2.0	3945
LW Select 320	1795	PressView 21T	2595	VideoVision Std. Array	4695
LW Select 360	619	PressView 21SR	2875	TrueVision Targa 2000	3695
LW 16/600PS	445				
Color 12/600PS	5495				
Stylewriter II	179				

AdobePhotoshop 3.01 for PowerMac $379.

Duo MiniDock no scsi $129.

Aldus Pagemaker Ver. 4.2 $99.

PANASONIC KX-P 5400 300dpi Post Script L.2 $389.

International Orders Welcome!

"Custom Configuration Specialists" •Lease or Buy•

2289 Westwood Bl. LA, CA. 90064 tel 310•470•9426 fax 310•470•4956

CALL THE MAC EXPERTS!

There are two kinds of resellers you'll see advertising here in MacWeek. The first sells boxes. No solutions, just a box. They sell Macs as a commodity. Then there's PowerMax. You won't see anyone else who sells CPUs from Apple, Power Computing, Umax/SuperMac *and* DayStar, at such competitive pricing and with such complete expertise and honesty. Call today and experience the PowerMax difference!

UMAX COMPATIBLES! MacWeek: ♦♦♦♦
SuperMac S900D 604-150 16/CD $2971
SuperMac S900L 604-150 16/2000/CD $3836

DAYSTAR
Genesis MP300 0/0 2-150 MHz $5495
Genesis MP528 0/0 4-132 MHz $8047
Genesis MP600 4-150 MHz 32/2000 ..... $Call!

800-844-3599
Local: (503) 624-1827 • Fax: (503) 624-1635
HTTP://WWW.Illuminatus.Com/PowerMax

POWER MAX™ Knowledge is Power
The Right Computer Company

Our people have been designing Mac systems since 1987. We don't just sell you a box and hope you don't call back. We'll give you some advice, customize & bench-test your system, and support you before, during and after the sale!

POWER MACS AT SUPER LOW NEW PRICES!
We specialize in putting together high-end custom systems!

Performa 6116 8/700/CD- factory ref.	$799
PowerMac 7200/75 8/500/CD- factory ref	$979
PowerMac 7200/90 8 Ram/CD	$1195
PowerMac 7200/120 8 Ram/CD	$1399
PowerMac 7500/100 16/CD- factory ref	$1648
PowerMac 7600/120 16 Ram/CD	$2099
PowerMac 8500/120 16 Ram/CD	$2599
PowerMac 8500/132 16 Ram/CD	$2799
PowerMac 9500/132 16 Ram/CD	$2949
PowerMac 8500/150 16 Ram/CD	$3499
PowerMac 9500/150 16 Ram/CD	$3799

PRINTER SPECIALS!

Refurbished Apple StyleWriter 1200	$149
New Apple Personal LaserWriter 320	$649
New Apple LaserWriter 4/600	$788

WE ALSO STOCK ALL POWERCOMPUTING CPUS – OUR PRICES ARE ABSOLUTELY UNBEATABLE!

Call for our free catalog!

POWERBOOKS • PERFORMAS • MONITORS
PRINTERS • SOFTWARE • SCANNERS • MODEMS
ALL AT EQUALLY UNBEATABLE PRICES!

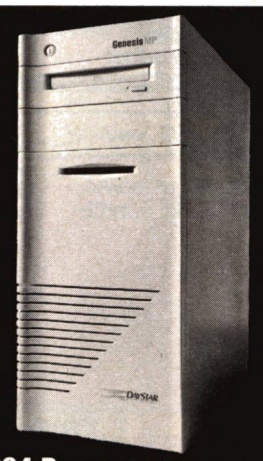
We stock the following lines- and we're experts at finding hard to get items!
•Adobe •Agfa •Atto •Apple •Canon •DayStar •Epson •Fargo •GCC •Global Village •HP •Iomega •Kingston •Kodak •LaCie •Magnavox •Microtek •Mitsubishi •NEC •Nikon •Optima •PowerComputing •QMS •Quantum •Radius •Samsung •Seagate •Seiko •Sony •SyQuest •Tektronix •TrueVision •Umax •Xante

We accept Corporate, Government and University POs, all major credit cards, CODs, wire transfers, leases.
Prices subject to change without notice. Prices reflect cash discount.

GenesisMP 528

16/1GB/CD

$6999



Quad 132Mhz PowerPC 604 Processors
Includes Keyboard and Mouse

DAYSTAR DIGITAL Adobe charged

MacWorks

MW MacWorks

"Low Prices, Great Service. . . That's The Deal!"

OTHER SCREAMIN' DEALS!

Apple Multiple Scan 14* - monitor	$249
Apple Multiple Scan 20* - monitor	$1199†
Radius Intellicolor 20e* - monitor	$1199†
PowerWave 604/150 - 16/1000/CD/ATI	$2899
Apple Geoport- Telecom Adapter	$49
Apple CD300i+/600i - 2X/4X	$79/$149
Manual/Auto - 1.44MB floppy drive	$49/$79

SEE OUR WEB PAGE OR CALL FOR FULL LINE OF APPLE PRODUCTS

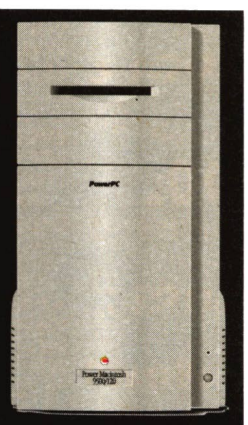
800-711-8679

e-mail: sales@macworks.com • web: http://www.macworks.com/

PowerMac 9500/120

16/1GB/CD/ATI

$2799

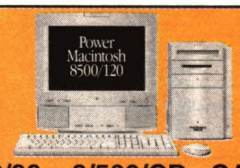


BRAND NEW - IN STOCK - 1 Year Apple Warranty
† with the purchase of a 9500/120

Voice 913-642-6336 • Fax 913-642-6466

International Sales Welcome • Prices Subject to Change • All Prices Represent Cash Discount • Call for dealer pricing • We only ship FedEx• * Denotes Refurbished (90 day Warranty)

Power Macintosh



7200/90	8/500/CD	CALL
7200/120	8/1.2/CD	1695
7200/120	16/1.2/CD	1898
7200/PC	8/1.2/8MBPC	2498
7500/100	16/500/CD	1749*
7500/100	16/500/CD	2089
7500/100	16/1GB/CD	2279
7600/120	16/1.2/CD	2299
8500/120	16/1GB/CD	2849
8500/120	16/2GB/CD	3089
8500/132	16/1GB/CD	2899
8500/150	16/2GB/CD	3749
9500/120	16/1GB/CD	2889*
9500/132	16/1GB/CD	3399
9500/132	16/2GB/CD	3089
9500/150	16/2GB/CD	3799
6100/66	8/500/CD	1079

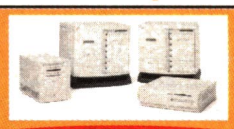
PowerBook®

540C 4/320/NEW	2129
150 4/240 or 8/250	589/689
190CS/66 8/500/CLR	1449
5300CS 8/500	1839
5300CS 16/750	2289
5300C 8/500	2287
5300C 16/750	2739
5300CE 32/1.1	3889
2300C/100 8/750	2749
2300C/100 20/1.1MDM	3599

Performa®

5200CD/6200CD	1299*/1389
6116CD/6200CD	859*/1289*
6205CD/6214CD	1039*/1089*
6220CD/6290CD	1579/1749
6300CD 8/1.2/CD/14"	1645
6300CD 16/1.2/15"	2069
6320CD 16/1.2/15"	2389

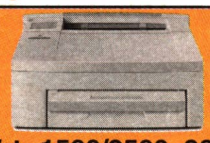
WorkGroup Srvrs



All New!

6150/66	16/1.2GB/intrnt	2099
7250/120	16/1.2GB/CD	2669
7250/120	16/1.2GB/Intrnt	3079
7250/120	16/1GB/CD/AS	3389
8550/132	24/2GB/Intrnt	5559
8550/132	24/2GB/CD/AS	5899
8550/132	24/2GB/CD/DAT	6199
8550/132	24/2GB/DAT/AS	6899
500/132	32/CD/BASE	7499
500/150	32/2GB/DAT/CD	9364
700/150	32/1GB/CD	10199
700/150	48/4GB/DAT/CD	12999

Apple® Printers



StylWrtr 1500/2500	269/359
LsrWrtr 4/600PS	829
LsrWrtr 12/640 PS	1479
LsrWrtr 16/600 W/Tnr	2088
LsrWrtr 12/600Ps Kit	5289

MAC TO GO®

A Fourb Technology Company

ORDER NOW AND SAVE

1-800-946-6221

Customer Service: 310.444.1122

Facsimile: 310.444.1130

iOMEGA ZIP 100 $159 After Reb.

Power Macintosh 8100/100 8/700/NEW $1859

PwrBk 5300CE 32/1.2GB/New $3889

PwrBk 150 8/250/New $669

GLOBAL VILLAGE TELEPORT PLATINUM $189

Apple Performa 6116CD 8/700/CD/REFB $889*

Apple 15" Monitor/Refurb $279

LsrWrtr 320 4PPM/NEW $539

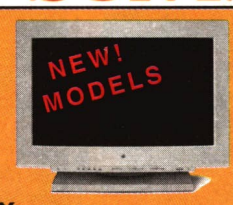
SuperMatch 21TXL 21"/Refurb $1189*

Apple® Monitors

MltplScan 14" Refurb/14"	239*/289
MltplScan 15" Refurb/15"	279*/389
MltplScan 1705/1710	699/888
MltplScan 1710AV	939
MltplScan 20"	1799

Gov't,Schools,Fortune 500 P.O.'s Welcome."*" are all Refurb prod. Visa,MC,AMAX accepted.Prices are Cash Discounted for COD Cash/Cashier Check.Prices may change by the actual publish date.

SONY



15SX		379
15SF2		448
17SF2		739
17SE2	NEW!	939
20SF2	1600X1280	1589
GDM-2000CT	NEW!	3099

NEC

XV15+/M500	469/579
XV17+/M700	779/829
XE 17/XP 17	989/1039
XE 21/XP 21	1689/1939

SyQuest

EZ135	189
88 W/ CART	319
200 W/CART	379
270 W/CART	379

HARD DISK

500MB EXT	169
1GB EXT	299
2GB EXT	469
4GB EXT	798
9GBAV Ext	2090

WACOM

ArtPad II 4X5	129
ArtZ II 6X8	298
ArtZ II 12X12	415
ArtZ II 12X18	685

GLOBAL VILLAGE

Telprt Platin	159
PPrt Plat PC	269
PPrt Plat Pro	409

APPLE NEWTON

Newton 120	629
Newton 130	729
2/4 Mb	99/176
Toolkit	269

Prices After Mfg. Rebate

EPSON®

ES-1000C	739
ES-1200C PRO-MAC	1129
Stylus Color	399
Stylus Color Pro	429
Stylus Color ProXL	1649

AGFA

Arcus II	1799
DuoScan	4999
StudioScan	579
StudioScan IIsi	909

HEWLETT PACKARD

DeskWriter 600	238
DeskWriter 660C	349
DeskJet 855CXi	484
DeskJet 340 Prtbl	318
DeskJet 1600CM	1889
LaserJet 5MP	969
Color LaserJet 5M	6799
LaserJet 4M+	1869
LaserJet 4MV	2689
LaserJet 5M New!	1729
LaserJet 5SI MX	3729
ScanJet 4P Mac	489
ScanJet 4C Mac	888

MICROTEK

ScanMaker E3	358
ScanMaker E6	547
ScanMaker III	1929

MAC PROFESSIONAL INC.

800.244.4622 FAX 818.719.9115

LOCAL & INTERNATIONAL ORDERS 818.719.9200

6430 VARIEL AVE, #105, WOODLAND HILLS, CA 91367

ALL PRODUCTS CARRY 1 FULL YEAR WARRANTY. ALL PRICES ARE CASH DISCOUNTED & SUBJECT TO CHANGE. WE ACCEPT VISA/MC/AMEX. NO TAX OUTSIDE CA. CONSULTANT, DEALER & INTERNATIONAL SALES WELCOME.

• GOV'T, FORTUNE 1000 & SCHOOL P.O.'S. WELCOME • LEASING AVAILABLE • • WE GUARANTEE BEST AVAILABILITY, PRICE, SERVICE, DELIVERY & SUPPORT • • WE SPECIALIZE IN CUSTOM MADE CONFIGURATIONS SINCE 1988 •

POWER MACS

7200/120	16/1000-CD	1849
7200/120	32/2000-CD	2199
7600/120	16/1.2-CD	2687
7600/120	48/2000-CD	3099
8500/132	32/1.2-CD	3639
8500/150	32/2000-CD	4197
9500/132	32/1000-CD	3695
9500/150	16/2000-CD	4495

PRINTERS

GCC ELITE 600 ETHERNET	1155
GCC 616 (11x17)	2455
GCC 1208 SUPERSIZE	4955
PERSONAL LASER 300	415
APPLE COLOR LASER	5495
STYLEWRITER 2400/2500	299/373
HP 5M / 5MP	1725/988

BEST PRICES!

SPECIAL!

POWER BOOK 520 4/240

FREE • PRINTER • MODEM • CARRYING CASE $995

POWER BOOK 150	4/240	595
PERFORMA 638	8/350-CD-TV	899
2GIG WANG DAT DRIVE	HOT!	595
SONY 8 GIG BACKUP		895
IOMEGA ZIP DRIVE	GREAT BUY!	193
IOMEGA JAZ DRIVE		533
EZ DRIVE 135		214
SYQUEST 200MB COMPLETE		349
7200/90	8/1000-CD	1450
7200/90	16/1000-CD	1499

FACTORY REFURBISHED

PERFORMA 6116	8/700-CD (14" MONITOR & KEYBOARD)	1075
STYLEWRITER 1200		145
RADIUS 17T		555
RADIUS INTELLI 20E		1250
SUPERMAC 21TXL		1350
APPLE 14"	GREAT BUY!	237
APPLE 15"		299

SCANNERS

AGFA ARCUS II		1849
AGFA DUO SCAN		4888
AGFA STUDIO SCAN	HOT!	758
UMAX POWER LOOK II		2277
UMAX MIRAGE 11x17		5888
NIKON SUPER COOL SCAN		1975

SHOPPERS MARKET

"The Intelligent Choice."

PERFORMA 6220 16/1.2GIG CD/TV *$999

POWERMAC 7600/120 16/1.2 gig cd $2599

APPLE 15" MULTISCAN *$249

APPLE STYLEWRITER 1200 *$129

POWERMAC 8500/120 16/1GIG CD $2949

POWERMAC 8500/132 16/2GIG CD $3499

9500/150 16/2/CD $4299

8100/100AV 16/1/CD *$2299

POWERMAC 7200/75 8/500 CD *$949

POWERMAC 8500/150 16/2 gig CD $3999

7200/120 8/1.2/CD $1749

Targa 2000 PCI $3399

Iomega ZIP Drive $179

POWERBOOK 150 8/250 $699

POWERBOOK 520 4/240 $749

Pivot 17" .26 $979

POWERBOOK 5300 CE 32/1.1 GIG $3899

POWERBOOK DUO 280C 4/320 $1099

1-800-463-9921

VISA, MASTERCARD, AMEX, DISCOVER ACCEPTED.

SALES (310) 842-3700

FAX (310) 842-8130

10875 Washington Blvd., Culver City, CA 90232

* REMANUFACTURE WITH WARRANTY ALL PRICES REFLECT A CASH DISCOUNT

MediaGuide

BUY / SELL / TRADE

USED - *We guarantee the BEST prices!*

SE 4/0 (800K).....$129 Plus 0/0.....$59

Mac II 5/40.....$99 IIx 5/40.....$199

LC 2/40...$179 LCII 4/40..$199 IIsi 5/80...$229

IIci 8/80...$319 IIcx 8/80...$239 IIvx 8/230..$399

Quadra 605 / 610 / 630 / 650 / 700 / 800 — Call

Quadra 840AV 16/230/CD.....$999

PB Duo 230 12/120/14.4.....$695

Apple Extended Keyboard.....$49

Apple 13" RGB.....$229 15" MultiScan...$279

ImageWriter II....$139 Syquest 88MB int....$79

4x Pioneer 6-disc CD-ROM changer....$219

800K floppy....$29 NEW 1.44 floppy.....$99

We carry parts for aging Macs — CALL

FileMaker Pro 2.1....$49 MS Office 4.2.1...$149

OmniPage Pro 5.0...$89 Pagemaker 6.0...$199

72-pin SIMMs: 8mb..$69 16..$145 32..$285

30-pin SIMMs: 1MB..$9 4MB..$45

(303) 715-1991

e-mail: MGSales@MediaGuide.com • Fax (303) 715-1419

MACMAIL

WITH THE LOWEST PRICE EVER

POWERMAC 7200/120•8/1.2G/CD.....$1859

POWERMAC 7600/120•16/1.2G/CD.....$2925

POWERMAC 8500/120•16/1G/CD.....$3290

POWERMAC 8500/132 16/1.2G/CD.....$3715

POWERMAC 8500/150 16/2G/CD.....$4649

POWERMAC 9500/150 16/2GIG/CD.....$4750

NEW!! APPLE SW 1500.....$265

NEW!! APPLE COLOR SW 2500.....$369

PRINTER APPLE LW 4/600 PS W/TNR.....$849

DISPLAY APPLE 15" MULTISCAN.....$409

DISPLAY APPLE 1705.....$729

DISPLAY APPLE 1710 MULTISCAN.....$909

APPLE COMPATIBLES MONITORS.....$CALL

POWERBOOK 5300 CE/117 32/1G.....$3975

P 630 CD 8/500 (CPU Only!).....$669

**PERFORMA 6300 CD•16/1.2G.....$2498

**Prices include Monitor, Keyb., Modem & Soft.

•SE HABLA ESPAÑOL •Int'l Orders Welcome

•Leasing Plans •FEDEX•UPS•Etc..•Prices may change

•Prices represent cash discounts

MACMAIL VISA COD

Miami, Florida 1-800-622-6844

International call (305) 639-9646

800-MAC-6844

V.L PROMAC

1-800-829-4857

POWERMAC

7200/120 8/1.2GB/CD	$1,789
7200/120 16/1.2GB/CD/L	$1,899
7600/120 16/1GB/CD/L2	$2,659
8500/120 16/1GB/CD	$2,990
8500/132 16/1.2GB/CD	$3,499
8500/150 16/2GB/CD	$4,149
9500/150 16/2GB/CD	$4,369

PERFORMAS

6300 8/1.2/14"/FM	$1,639
5300 8/1.2/15"/FM	$1,739

SPECIAL OF THE WEEK

PERFORMA 6300 8/1.2GB/CD/14"/14FM $1,899

STYLEWRITER 1500

FREESHIPPING

INTERNATIONAL (305) 593-9221

FAX (305) 593-8921

SE HABLA ESPAÑOL

Que Computers 612-623-9144

Mac/PC, New/Used, Buy/Sell/Trade

RAM Special Life time warranty

1mb 64pin for fx/printer	$9.99	1mb, 30 pin simms	$15
4/8mb 72 pin new	$37/69	Classic 3mb RAM card	$45

Mac CPUs

SE 4/20	$199	SE/30 4/80	$349
Mac IIcx 4/80	$199	Mac IIvx 4/80	$349
Mac IIci 4/80	$279	Mac IIfx 4/80	$299
Performa 630/Q630 4/250			$599/699
Quadra/Centris 660AV 8/230CD			$799
Quadra 700/800 8/230			$699/$899
PPC6100/60 8/250 $699, 8/350CD			$850
PPC7100/66 8/250 $999		8100 8/500	$1099

Power supply:

Power supply w/ analog for Plus$35, SE $55

Mac II/IIx/IIcx/IIci/IIfx $49, Classic $99

Logic board:

Plus $25, SE $35, SE w/HD$75, Classic $75

Mac II $49, IIcx/x/ci/fx $49/$125/$149/$149

Quadra 605/P475 logic board $299/exchange

Casees:

Plus $10, SE$15, Classic $25, all Mac II $25

Peripherals

8 bit video card $75, 24 bit v. card from	$125
Apple ImageWriter II	$99
Apple Stylewriter 1200 new	$189
PB battery charger and auto adapter	$29
Ext. HD floppy drive for Plus/SE	$99
800k drive Int. $29, ext.	$39
Classic/SE 16-40MHz accelerator from	$25
QuadraLink (4 extra serial ports)	$75
AXiON 3 serial ports ext. expander	$29
Ext. hard disk case (SCSI cable extra)	$29
1X NEC ext. portable CD-ROM	$29
2X GoldStar CD-ROM int. new	$39
105 SyQuest drive int. new	$49
Radius 15" Pivot/color pivot	$149/299
15"/19" grayscale monitor	$125/299
15"/19" b/w monitor	$125/199
15" Apple portrait	$175
17" Digital,Trinitron (Sony 1602)	$349

2418 E Hennepin Ave. Minneapolis, MN 55413 / fax 612-623-9155

Major credit cards accepted. Visit our web site at http://quecomp.com

Classified

MAC NET

CALL US NOW!
1-800-404-9976

Prices Simply Unbeatable!

MORE POWERFUL THAN EVER!

NEW POWER MACS

Power Mac 9500[150] 16/2GB/CD.....4,059
Power Mac 9500[132] 16/2GB/CD.....3,049
Power Mac 8500[150] 16/2GB/CD.....3,799
Power Mac 7600[120] 8/Conf.....from 1,899
Power Mac 7200[120] 8/Conf.....from 1,429
Power Mac 8500[120] 16/1GB/CD.....2,799
Power Mac 7200[99] 8/Conf.....from 999
Power Mac 7200[75] 8/Conf.....from 799

PERFORMAS & POWERBOOKS

Performa 6320[120] 8/1.2GB/CD/FAX.....1,729
Performa 5300[100] 8/1.2GB/CD/FAX.....1,699
Performa 5200[75] 8/800/CD/Fax 28.8/15" Monit.....1,299

FAX MODEMS

SUPRA 33.6.....139
ROBOTICS 33.6.....169
GLOBAL PLATINUM TELEPORT 28.8.....199

PERIPHERALS

Laserwriter Color.....4,599
Laserwriter 12/640.....1,499
Laserwriter 4/600.....799
Stylewriter 2500.....359
Stylewriter 1500 Color.....289
Stylewriter 2200 Color.....269
Apple Monitor 14".....299
Apple Monitor 15".....379
Apple Monitor 17".....699
Apple Monitor 20".....1,849
Apple Keyboard.....75
Geoport.....109
Quick Take 150.....649

MEMORY DIM SIM

8 MB.....79.....79
16 MB.....139.....139
32 MB.....269.....269
64 MB.....499.....499

SyQuest external

CARTRIDGE DRIVE

88MB.....39
200MB.....59.....329
270MB.....45.....249
EZ135MB.....18.....129
ZIP.....13.....179

SCANNERS

Microtek E3 2400DPI,COLOR IT,OCR,SCAN WIZARD.....349
Microtek E6 PRO 4800DPI,LIVE PICT. 2.1,OCR,SCAN WIZARD.....669
PAGE WIZ.....179
TRANSP. ADAPTER(E3 & E6).....259
UMAX VISTA S6E.....389
UMAX VISTA S6E PRO.....579
UMAX VISTA S12 9600DPI.....749
Transp. Adapter S6/12.....379

Cards DISCOVER MasterCard VISA

All products are fully warranted. Dealers inquires welcome. *CPU ONLY

Low End COLOR System Blowout!!
Macintosh IIcx 4/80
Extended Keyboard
Apple 13" Color Trinitron
$379!
90 Day Warr.

MQ Mac·Res·Q.

NEW Apple CD600i 4x $149!!
We Help You Beat The System
NEW Apple CD300+ : $59!!

PowerMac 9500/120 16/1Gig/CD/Video	$2799
PowerMac 7500/100 16/500/CD*	$1899
Performa 6200 16/1 Gig/CD/14.4*	$999
Performa 630 8/250/CD/Software*	$649
Performa 475 4/160/14" Color/Modem	$775
Mac IIsi 5/80 †	$189
Mac IIcx 4/80 †	$149
Mac SE 4/20/Kbd †(Yes, Still Some Out There!)	$99
PowerMac 6100 DOS Cards	$249
PowerBook 520 12/500*	$999
PowerBook Duo 230 4/500*	$499!
Apple 13" RGB Trinitron Display †	$189
Apple 14" Trinitron Display †	$229
Apple 14" MultiScan Display*	$249
Radius PrecisionColor 17 Display*	$799
Apple StyleWriter 2500	$349
Performa/Quadra 630 to 6200 Upgrade	$399!

APPLE CDRoms & FLOPPY Drives:

Apple CD600i	$149
Apple CD300i (Caddy) 2X CDRom (Qty 20)	$25
Apple Manual Inject Floppy **	$49
Apple Auto Inject Floppy **	$79
PowerBook 100 Series Floppy Drives**	$79
PowerBook 500 Series Floppy Drives**	$89

APPLE POWER SUPPLY BLOWOUT!!**

LC, II, III, Perf. 4xx, Quadra 605	$19
Quadra 800 thru PPC 8100	$109
Mac IIcx/IIci/Q700	$49
C610 thru PPC 6100 / PPC 7100	$59
PowerMac 8500/9500	$129
All Duo Docks & Mac IIsi (Exch. Only)	$99

POWERBOOK HARD DRIVES:

500 MB SCSI NEW	$349
750 MB SCSI NEW	$549!!

†= Used, 90 Day MacResQ Warranty • * = Factory Refurbished (90 Day Warranty) • All Parts Sold With a 90 Day MacResQ Exchange Warranty • Email: Sales@macresq.com • ** = Exchange Required For Orders of 5 or Less
We Accept All Major Credit Cards With NO Surcharge. • Prices Subject To Change • Place Your Orders Online!

888-44-RESCUE
Voice 510-689-9488 510-689-9487 Fax
Special Dealer Prices On Our Website!
WIN A MACRESQ T-SHIRT AT
WWW.MACRESQ.COM

Trinitron™ Liquidations

17" Trinitron Monitors, .26 dp (R) (832 x 624 @ 75hz/Single Scan)	359.00
17" Hi-res. Trinitron Monitors, .26 dp (R) (1024 x 768 @ 75hz/Single Scan)	399.00
20" Trinitron Monitors @ 60Hz (R)	.499.00
Int. 160 MB Hard Drives (N)	.65.00
Mac II 4MB RAM/160MB Hard Drive (U)	.99.00
Quadra 840av 0/0/CD w/keyboard (U)	.995.00
Quadra 950 8/650 w/keyboard (U)	.995.00
Performa 6116 8/700/CD w/key. (R)	.959.00
Performa 6205 8/1000/CD (R)	.1429.00
1.44 FDHD, Auto-Inject (NEW)	.109.00
Quad-Speed 4x CD-ROM Drives (N)	.99.00
Adobe PageMaker 6.0 Deluxe CD-ROM (N)	179.00

RAM Upgrades available.
Authorized PowerComputing Reseller
Call for pricing!

POWER ON COMPUTER SERVICES
(800) 673-6227
4323 Anthony Court, Unit #1 • Rocklin, CA 95677
(916) 652-1880 • (916) 652-1881 FAX
AOL: poweronwww@aol.com • http://www.poweron-line.com

Control Multiple Macs With 1 Keyboard, Monitor & Mouse

Keyboard, Monitor & Mouse Switches:
- Control up to 32 Macs with one switch.
- Keyboard, monitor and mouse presence simulated 100% of the time.
- Video resolution through 1600 x 1200.
- Multiple devices on ADB Bus.
- Desktop or rack mount available.

Monitor Splitters
- Drive up to 16 monitors from one computer.
- 150 MHz bandwidth.
- Operate with cables up to 250 ft. long.
- Video resolution through 1600 x 1200.

Keyboard, Monitor & Mouse Switch

NETWORK TECHNOLOGIES INC
1275 Danner Drive • Aurora, OH 44202
216-562-7070 • FAX: 216-562-1999

FREE CATALOG!
toll free US & Canada
800-742-8324

1020 Manhattan Beach Blvd. Ste.106
Manhattan Beach, CA 90266
CALL TOLL FREE
USA 800/581-6299
(except West Coast)
West Coast 800/400-9682
Int'l 310/546-9343
FAX 310/796-9910

perisys
CURRENT PRICING

For our full line of products visit us on the Web at www.perisys.com
email perisys@perisys.com

VISA MasterCard

SYQUEST EZ 135 $129
IOMEGA JAZ DRIVE $499
IOMEGA ZIP DRIVE $189
YAMAHA COR 100E EXTERNAL W/TOAST $1125

SYQUEST & OPTICAL DRIVES

Syquest 200m Int	$291
Syquest 200m Ext	$339
Syquest Ez135 Ext	$129
Syquest Ez Flyer 230m	$299
Iomega Zip Drives Ext	$189
Iomega Jaz Drive Ext	$499
Iomega Jaz Int w/cart	$399
Jaz Cartridge	$99
Jaz Cartridge 5 pack	$489
Zip Cartridge	$14.50
Zip 10 pack	$129.90
Syquest 44m Media	$39
Syquest 88m Media	$44
Syquest 105m Media	$49
Syquest 135m Media	$17
Syquest 200m Media	$56
Syquest 270m Media	$52
Syquest 230m Media	$29
Fujitsu Dynamo 230MO	$489
Fujitsu 640MO Int	$639
Fujitsu 640MO Ext	$709
Olympus Deltis 230MO	$489
Optical Media 230M	$17

SCSI HARD DRIVES

Quantum FB540s 11ms	$139
Quantum Tb850s 1ms	$181
Quantum Atlas 8ms 1G	$249
Seagate St51080n 10ms	$244
Quantum Fb1280s <11ms	$259
Quantum Sat. 2.2g 8.5ms	$459
Quantum Xp32150s 8ms	$599
Quantum Xp32150s-w	$599
Seagate St32151-n	$555
Seagate St32151-w	$599
Seagate St 32550n 8ms	$659
Seagate St 32550w 8ms	$699
Quantum Xp34300s 8ms	$899
Quantum Xp34300s-w	$929
Seagate St 15150n 8ms	$999
Seagate St 15150w 8ms	$1055
Seagate St 41080n	$1925

Add $70 to any SCSI/SCSI II and $130 for wide drives for an external drive. All external drives come with a formatter, cables, and an active terminator.

SCSI 2.5"

Toshiba 340m	$199
IBM 810	$499

CD-ROMS

NEC 4x	$99
Sony Cdu-76s 4x	$119
Toshiba 6.7x	$207
Philips 8x	$255

Add $50 for an external

CD-ROM RECORDERS

Pinnacle RCD100	$699
Sony 2x Cdr Int	$849
Sony 2x Cdr Ext	$919
Philips CDD 2000 Int	$849
Philips CDD 2000 Ext	$919
Yamaha 102 Int	$739
Yamaha 102 Ext	$829
Yamaha 100 Int	$1025
Yamaha 100 Ext	$1125

All Cdr's include Toast or Gear. Customer choice.

CONTROLLERS

Q Logic Pci Wide	$295
Adaptec Aha 2940 W-Mac	$309
Atto Pci Raid Kit Single	$599
Atto Pci Raid Kit Multi	$899
Perisys Raid 4g	$2050
Perisys Raid 8g	$2699

All Raid pricing is external. All drives are 8ms Wide AV drives. All enclosures are our premium double fan enclosures.

Not your ordinary drive enclosures!

Here at Wetex International we don't think adding SCSI peripherals should be hard so we made our nifty external enclosures easy to install.

Our Removable Storage Module turns your 3.5" hard drive into a removable device for backups, data swapping and security.

Our external enclosures provide up to 20 bays, with optional fault tolerant hot-swappable power supplies in the larger models—ideal for RAID. All enclosures include cables, power supply, ID selector switches and cooling fans. All models support SCSI I/II and can be upgraded to Fast/Wide SCSI II at an additional cost. Call or fax for details.

Introductory prices Limited time only

- ZFP 5.25" HH encl. $ 60
- 2-bay 5.25" HH encl. 89
- 4-bay 5.25" HH encl. 125
- 7-bay 5.25" HH encl. 195

Price includes 26" 25/50 ext. cable, 50-pin Centronics passive terminator.

- Plastic RMS $ 49

MasterCard, Visa, Discover
Prices, specifications, availability subject to change without notice.

1-800-75-W9E3T8E3X9
Int'l & CA: 818-854-6600 fax 818-854-6611
Wetex International (U.S.A.) Corp.

GRIFFIN TECHNOLOGY

MONITOR SOLUTIONS

MAC SYNC ADAPTER allows virtually any monitor to be used with your Mac/ PowerMac!

MAC RES ADAPTER allows users to select the proper resolution for their fixed frequency or multisync monitors

MAC SYNC II SERIES allows all multisync monitors to be used with a IIci, IIsi, MacII series built in video

MAC TO VGA connects any PC monitor to your mac or third party video card!

http://www.nashville.net/~griffin

Tel.615/255-0990 • Fax: 615/255-8040 • Grifcom@aol.com

MISSION POSSIBLE
Digital Video Editor
Mac ppc 9500 132mhz
media 100 qx, 2gig av hd
80mb , yamaha cdr...$12295
THE MACS
ppc 9500 150mhz 0/0/0...$3875
ppc 8500 120mhz 16/1/cd... $2875
ppc 8500 132 32/2/cd...$3850
THE BIG GUNS
media 100qx...$4750
media 100 qxc...$6495
targa 2000 pro...$3995
THE REINFORCEMENT
q800 made ppc 8500 120mhz...$1895
q840 made ppc 8500 120mhz...$1795
THE CAPTURE
4 gig barracuda fast wide...$1050
4 gig quantum fast wide...$1050
2gig hawk...$550
THE AMMO
16MEG....$175 32MEG...$285
64MEG....$590
SALES / VIDEO EDITING
TEL.619.623 1575
LA JOLLA, CALIFORNIA
VISA.MASTERCARD.DISCOVER.AMEX
HOT PRICES
COOL ATTITUDES
MAXED systems

BUY • SELL • TRADE
CASH FOR YOUR MAC

PB 520 4/240 (N)	$799
DUO 250 12/200/14.4 (R)	$999
Apple 20" .28DPI (N)	$1750
6220 16/1G/CD CPU (R)	$1049
6100/60 8/500/CD (R)	$649
StyleWriter (R)	$165

New & Used Mac Sales and Service
Corporate Customers: Ask About Our Rental Program
MAC-RENTALS
REMARKETING
1-800-756-6227
7924 Ivanhoe • La Jolla, CA 92037 • Fax: 619-454-1360

JOIN
TEAM IMMACULATE
WE PLAY FAIR
Buy · Sell · Service · Memory · Web Pages · Fast repair · CPU's · Trade · Upgrades
WE CARRY A FULL LINE OF MACINTOSH SERVICE PARTS.
Visa·MasterCard·Amex·Discover
1-800-8080-MAC
WWW.EARTHLINK.NET/~IMMACULATE
310-577-1791
Fax 310-577-1793
immaculate@earthlink.net

Quantum HARD DRIVES

340MB	Fujitsu	$119
850MB	Trailblazer	$181
1280MB	Fireball II	$265
2100MB	Saturn	$479
4280MB	Atlas	$899

*Please add $59 for External Hard Drive External includes Power&SCSI Cable, Ext Terminator, Formatting Software, Installation Manual.

ENCLOSURES

Portable	$58
Zero Footprint	$58
4-Bay Case	$129
7-Bay Case	$229
Pocket Case	$69

*ALL HARD DRIVES & ENCLOSURES ARE BRAND NEW WITH 2 TO 5 YEAR MANUFACTURER'S WARRANTY. ALL HARD DRIVES COME WITH FORMATTING SOFTWARE. 30-DAY MONEY BACK GUARANTEE. UNLIMITED TOLL FREE TECHNICAL SUPPORT.
PRICES ARE SUBJECT TO CHANGE

MEMORY

1MB	1X8 80ns	$14
2MB	2X8 80ns	$36
4MB	4X8 70ns	$38
4MB	1X32 70ns	$34
8MB	2X32 70ns	$69
16MB	4X32 60ns	$139
1MB	VRAM	$49
8MB	PB5300	$149
16MB	PB5300	$279
24MB	PB5300	$469
8MB	DIMM	$79
16MB	DIMM	$149
32MB	DIMM	$299
64MB	DIMM	$599

OTHER MAC STUFF

Extended Keyboard	$39
2-Year Warranty	
ADB Mouse	$19
5-Year Warranty	
Bulk Disks 50-Pack	$24
Phonet Connector	$7
Lifetime Warranty	
HDI-30 Adaptor	$19
Lifetime Warranty	
Ethernet Tranceiver	$29
Lifetime Warranty	
RAMDoubler	$49
Connectix	
QuickCam	$95
Connectix	

GOVERNMENT & CORPORATE PURCHASE ORDERS ACCEPTED, NO CHARGE FOR VISA & MASTERCARD.
PRICES SUBJECT TO CHANGE
www.tdcurran.com sales@tdcurran.com
T.D. CURRAN
800-645-2533
Fax (360) 380-3900
INTERNATIONAL ORDERS (360) 380-3999,
T.D. Curran Inc.
3635 Haxton Way
Bellingham WA 98226

EXTREME JAZ/CD-R DUO

NOW ONLY $1299
Now you can have it all! A blazing 1GB workspace for digital video/audio, another removable volume for huge graphics, another rewritable disc for work-in-progress game or d-base development. Then seamlessly transfer to data or audio CD - low cost CD's that can be distributed universally or saved as lifetime enduring archives. Call it the ultimate ensemble of speed, versatility and removability or just call it
MEDIASTORE
See us at http://www.mediastore.com
800•555•5551
4X CD-R/JAZ Duo also available

RECORD CDs
NOW YOU CAN AFFOURD ONE TOO!
YAMAHA **4X MULTIMEDIA BUNDLE $1099**
iomega **JAZ** 1GB Removable HD •Includes 1 Cartridge **$499**
SONY Award Winning 2X $699
SOFTWARE
ASTARTE.
CD-DA For writing "Red-Book" Audio CDs $449
CD-COPY Bit by bit copying of CDs $199
M-PACK MPEG Encoding software $399
TOAST 3.0 #1 CD Writing SW, Improved $299
digidesign
AUDIOMEDIA III PCI Audio I/O card $699L
MASTERLIST For writing Pro Audio CDs $749
All Recorders incl: **TOAST PRO 3.0 FOR MAC**
Writes On-the-Fly
Optimizes On-the-Fly
Incremental Backups
CD LABELER Complete Kit
• Software for Mac or PC
• 100 Gold & white labels
• Alignment Device
Only $79
OPTICAL CARTS
128MB... $11.99 650MB... $34.99
1.3GB... $44.99
230MB... $16.99 2.6GB... $69.99
SYQUEST, JAZ & ZIP
44MB...$33 105MB...$35
88MB...$37 270MB...$56
JAZ 1GB $110
200MB...$70 ZIP 100MB $16.99
COLORSCRIBE CD Blank Printer
• 360 DPI Resolution
• Under a minute per CD
• Brilliant Color
$2995
2.6GB OPTICAL DRIVE
• Reads/Writes 1.3 & 650 Disks
• 60% Faster than 1.3GB
Only $1699 External
ASTARTE. M. PACK
AFFORDABLE MPEG-Encoding Software
• Create MPEG-streams that conform precisely to the VIDEO-CD (white-book) standard
• Perfect for Macromedia DIRECTOR users
ALSO AVAILABLE: ARRAYS and CD-R/CD CHANGERS
AS LOW AS $6.99 Verbatim, Kodak or Mitsui 74 Minute • 4X & 8X Certified
MEDIASTORE
See us at http://www.mediastore.com
800•555•5551
NEVER UNDERSOLD!
ph. 714-974-5551 • fx. 714-279-1690
Prices subject to change
VISA MasterCard AMERICAN EXPRESS

RECONDITIONED MACS & PERIPHERALS

Mac IIci 4/80	$289
Mac LC III 4/160	$329
Centris 610 8/230	$429
Centris 650 8/230	$549
Quadra 700 8/230	$549
Quadra 800 8/230	$749
File Server Monitor	$69
Apple 14" Trinitron	$259

Other Products Available...Call
1-800-281-3661
VISA & MasterCard Accepted
Faxback: 615-860-0109 (24-hours)
E-mail: DataTecRem@aol.com
DataTech Remarketing, Inc.
471 Myatt Dr., Madison, TN 37115
615-860-4422 • Fax 615-860-0390

HAWKE BUSINESS SYSTEMS
Flemington, NJ 08822
(800) 875-2610
Fax - (908) 782-7027
Email - MacHawke@AOL.COM
Buy - Sell - Trade - Repair
Macintosh Computers and Peripherals
Mac IISi 5/80 W/ Ext Kyb
Hi Res Color Monitor & Mouse $549.00
Mac IICi 5/160, w/Cache, Ext Kyb
Hi Res Color Monitor & Mouse $649.00
6 Month Parts and Labor Warranty

Mac Se 4/40 FDHD w/K&M	$325.00
Classic 4/40 w/K&M	$375.00
Classic II 4/80 w/K&M	$475.00
Mac Se/30 4/80 w/K&M	$525.00

Repairs and Parts for Mature Macs
Apple Hi-Res Color Monitor - $225.00
StyleWriter 1200 - Apl Refb - $199.00
Refb 1.44 Meg Floppy(w/t) $89.00
Se, Cx, Ci, IIFx Cases - Call
Convert 2.5" HD to STD SCSI - $19.00

Optical Cartridges
KYOCERA
World's Largest 3.5" MO Producer
Lifetime Warranty
Magneto Optical Disks
230MB MO Disks . . . $17.99
128MB MO Disks . . . $12.99
CD-Recordable Media
CD-R 6X Compatible...$ 7.50
CALL TODAY FOR OUR LATEST MEMORY PRICES!
Memory Merchants
800-799-DISK *Since 1989*
http://www.mmerchants.com/

ZD Marketplace On The Web
Location: http://www.zdnet.com/marketplace
SHOP THE WEB
Go to ZD Marketplace On the Web, a searchable database of hundreds of ads for everything computer related.
http://www.zdnet.com/marketplace
ZD Marketplace™ ON THE WEB

Must Move Lots of Quality Pre-Owned Macs...Call Today!

Centris 610 68040/20 230HD 8Mb 1.4M	$ 595	Quadra 650 68040/33 230HD 8Mb CD	1,250
Centris 650 68040/25 230HD 8Mb 1.4M	695	Quadra 650 68040/33 500HD 8Mb w/CD	1,350
Centris 650 68040/25 230HD 8Mb 1.2M	895	Quadra 660 68040/25 500HD 8Mb	995
Powerbook 68030/33 80Mb 4Mb 1.4M GS	1,250	Quadra 700 68040/25 230HD 4Mb	775
Powerbook 68030/33 120Mb 4Mb 1.4M GS	1,295	Quadra 840AV 68040/40 230HD 8Mb w/CD	1,395
Powerbook Duo 68040/33 240HD 12Mb Color	1,395	Quadra 840AV 68040/40 500HD 8Mb	1,495
Powerbook Duo 68040/66 320HD 4Mb Color	1,995		
Powerbook Duo 68040/66 320HD 12Mb Color	2,195		
Quadra 650 68040/33 230HD 8Mb	1,195		

Ask About Other Mac Equipment Available!
1-800-431-7716
GE Capital
Computer Remarketing Services
Our Business Is Helping Yours®
AMERICAN EXPRESS MasterCard VISA
• 30-day warranty included
• All sales subject to availability

Classified

Apple II & Macintosh

COMPUTERS • PARTS • EXCHANGE REPAIRS

Specialists in used and reconditioned systems, monitors, printers & parts. Call for a free catalog.

1-800-274-5343

Int'l: 617-275-4600 FAX: 617-275-4848

Pre-Owned Electronics INCORPORATED

205 BURLINGTON ROAD, BEDFORD, MASSACHUSETTS 01730

USED COMPUTERS

The Computer Exchange

"We match buyers and sellers of used equipment nationwide."

From CLASSIC to POWER PC

Call for More Info

800-304-4639

Ph: 404-898-0700

http://www.compexch.com

205 Armour Drive Atlanta, GA 30324

Color T-Shirts printed right from your files!

by

Action Color & Design

Need quick color printing in low quantities?
Need color overheads for a presentation?
NO PROBLEM!
E-mail your files to prints@actioncolor.com

- Low Run Color Printing!
- Excellent for Quantities of 1-500

Color Prints
Color T-Shirts
Brochure Layout
Color Overheads
Color Scanning

- 24 Hr Turnaround
- FedEx Availble
- ftp Availble
- E-mail for more information to info@actioncolor.com

CALL (800) 984-9464 !

http://www.actioncolor.com

VICOM INTERNET GATEWAY

Internet Access for your Entire LAN

Share one Internet account across an entire network, simultaneously

Low cost Internet access for everyone!

- Education
- Small Offices
- Training
- Home
- Workgroups
- Research

VICOM Internet Gateway allows simultaneous Internet access using one Internet account on a local area network with a single modem. The Vicom Internet Gateway runs on a Macintosh computer with a 68020 processor or better running version 7.0 System Software.

The VICOM Internet Gateway supports any Internet based applications, such as Netscape and Eudora, acts as a transparent TCP/IP router between the user's machines and the Internet. With support for Ethernet and AppleTalk networks, multiple users on these networks can access the Internet using a single modem or ISDN interface connected to the gateway with a single PPP or SLIP Internet account.

VICOM Internet Gateway, which allows 2 simultaneous users to access one Internet account via a modem retails for $149.00, additional 1 user costs $50.00, 10 users $300.00 and 20 users $500.00. An ISDN Module can be purchased for the small office version for an additional $149.00. The full VICOM Internet Gateway supports 5 simultaneous users with Modem and ISDN support retails for $399.00. **Call for free evaluation and consultation about getting your network onto the Internet.**

1-800-818-4266

email: sales_2@vicomtech.com web: www.vicomtech.com

Credit Card

Authorization & Electronic Deposit Software

- Automatically authorizes and deposits all credit card sales -- individually or in batches.
- Integrate into your sales system using AppleEvents, AppleScript & import/export.

INTERNET COMMERCE READY!

MacAuthorize®

POS Credit Developers since 1981

800/483-5526 • 408/274-1110

info@tellan.com

http://www.tellan.com

Tellan Software, Inc

ISOMEDIA

2441 152nd Ave NE, Redmond, WA 98052
(206) 869-5411 • Fax (206) 869-9437

800-468-3939

CD-ROM SERVICES

- **Premastering and Duplication**
  Macintosh HFS, ISO 9660, Hybrid, Mixed Mode, Audio, RockRidge, MSCD or CDPLUS
- **CD-ROM Replication and Fulfillment**
  One-Offs, Short-Runs and full Replication
- **Data Conversion**
- **Quick Time and MPeg Video**
- **Scanning and Imaging Services**

Cutters: •Sony •Yamaha •CDE100 •Pioneer
Software: •Toast •OMI •Sony •Gear •Incat

Serving you Since 1991

Blank CDR-74 minute Media $7.95 in volume

World Wide Web
http://www.isomedia.com

COLOR MONITORS REPAIRED

Flat rate pricing:
RADIUS • SONY • RASTER OPS
IBM • HITACHI • MITSUBISHI

OVER 1,000 MODELS LISTED.
QUANTITY DISCOUNTS AVAILABLE

Each monitor is cleaned, adjusted to factory specs, and backed by a six month warranty on parts and labor.

For Pricing Call

800-682-5175

3E Corp. Chicopee, MA

DATA RECOVERY: 800 440-1904

Seven good reasons to choose DriveSavers:

1. We're the most trusted and respected Data Recovery Specialists
2. 24-hour, onsite, and weekend service available
3. Proprietary techniques so advanced we retrieve data others might simply abandon
4. Certified to maintain most drive warranties
5. Over 11 years of data recovery experience
6. Featured by CNN, NextStep, C-Net, and *Forbes*
7. All storage devices; DOS, Win95, WinNT, OS/2, Mac OS, UNIX, Sun, SGI, Novell

DRIVESAVERS® DATA RECOVERY

WE CAN SAVE IT!

Call when you need us, or visit DriveSavers at: www.drivesavers.com

400 BEL MARIN KEYS BL., NOVATO, CA 94949, VOICE: 415-382-2000, FAX: 415-883-0780

The Data Recovery Leader.

Ontrack is the worldwide leader in data recovery services for hard drives, floppy diskettes, tape, and removable media. Whether data has been corrupted, crashed, infected, flooded, burned or has mysteriously disappeared, Ontrack can help!

- 24-Hour, On-Site & Emergency Services
- Expertise in Mac & Virtually Every Operating System

Ontrack® DATA RECOVERY

http://www.ontrack.com

© 1996 Ontrack Data International, Inc.

CA: 1.800.752.7557 • MN: 1.800.872.2599 • DC: 1.800.650.2410

WHEN YOU ABSOLUTELY, POSITIVELY HAVE TO GET YOUR DATA BACK...

FREE DIAGNOSTIC EVALUATION.

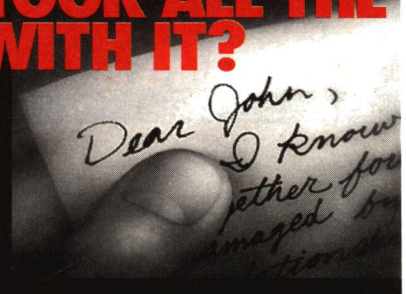
MICRO COM™

OVER 15 YEARS OF EXCELLENCE

19011 Ventura Blvd. Tarzana, CA 91356

800 469-2549 • 818 881-8015 fax

SO, YOUR HARD DRIVE SPLIT AND TOOK ALL THE DATA WITH IT?



PROFESSIONAL DATA RECOVERY SERVICES.

HARD DRIVES, FLOPPY DRIVES, SYQUEST, EZ-135, ZIP, JAZ, OPTICAL AND BERNOULLI.
ONE-DAY SERVICE AVAILABLE.
COMPETITIVE RATES.

TOTAL RECALL
THE DATA RECOVERY COMPANY

800-743-0594

2462 WAYNOKA ROAD COLO SPRINGS, CO 80915 • 719-380-1616 • 719-380-7022 • http://www.recallusa.com

MAC REPAIR & UPGRADE

800-622-7977

24 HOUR SERVICE TURNAROUND
LONGER WARRANTY
FREE DIAGNOSTICS
COMPETITIVE PRICE

- Specialize in component repairs
  -Power Mac
  -Power Book
  -Logic boards
- Advance Exchanges

Phone: 408-720-9899
Fax.: 408-720-9459
720 East Evelyn Ave.
Sunnyvale, CA 94086
http://www.dttservice.com

DT&T MACINTOSH SERVICES, INC.

800-WE-FIX-MACS

Component Level Macintosh Repair

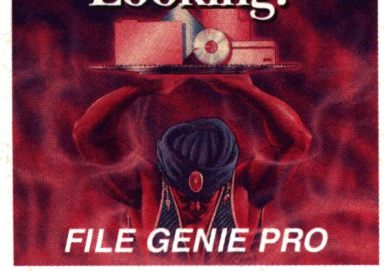
Compare and Save!

- 24 Hour Turnaround
- Guaranteed Lowest Prices
- Longest Warranties
- FREE Diagnostics
- Largest Inventory of Parts
- Advance Exchanges
- Toll Free Tech Support
- Established 1989

PowerBook, LaserWriter & Radius Specialists!
Call for Complete Price List

(800) 933-4962 (408) 988-2334
2210 North First St, San Jose CA 95131

Are You Still Looking?



By the time you read this ad, File Genie Pro has found the file you need. It automatically remembers *every* file in your disk library. Only $49. Order Now!

Duet Development Corporation

1-800-DUETLINE
http://members.aol.com/duetline

Mouse Pads

Custom Printed
• Your Logo Design
• Fast Turnaround

•Guaranteed Quality
MicroStore™
800-962-8885
FAX: 507-665-2604
LE SUEUR, MN 56058
Wrist Supports

Custom Mouspads by Moustrak

Moustrak can **customize** any imprint on our cloth or hard surface mouspads and our wristpads and coasters. Also exclusively available through Moustrak is our lines of **licensed graphic** mouspads, ask our sales staff for flyers showing the mouspads in each line. **Dealer/Distributor** inquiries encouraged.

MOUSTRAK™ Inc.
COMPUTER ACCESSORIES

Toll-Free: 800-221-6687 International: 702-884-1925 Fax: 702-884-1827 Canada: 800-668-8440
Visit our web site at http://www.moustrak-inc.com

Star Trek is a Registered Trademark of Paramount Pictures ®, ™, & © 1994 Lucasfilm Ltd. © 1995 David Miller/Addi Fine Art Publishing ADVANCED DUNGEONS & DRAGONS, RAVENLOFT, FORGOTTEN REALMS, and the TSR logo are trademarks of TSR, inc. Art © TSR, inc.

DATA RECOVERY IN HOURS.

- Over 10 years of experience with clients worldwide including Apple, NASA, & FedEx.
- We've recovered more than half-a-million megabytes of Mac data alone.
- You only pay when there's a recovery.
- Express One-Day Service is available.
- Call 24 hours a day.

LAZARUS
DATA RECOVERY
Working at the speed of business.
800-341-DATA
415-495-5556 • FAX 415-495-5553 • RESTRICTIONS MAY APPLY
381 Clementina Street • San Francisco, California 94103

ACTION

You're Not the Only One Reading This Ad!
87% of MacWEEK Subscribers Look At Marketplace and Almost All of Them Act.

95% Took Some Action
82% Bought
69% Referred Information To Others

ADVERTISE HERE, WHERE MAC VOLUME BUYERS BUY DIRECT! CALL 800-825-4237

Source: 1994 MacWEEK Marketplace Subscriber Study

Macintosh Software Developers

We provide staffing services to companies developing commercial software products. Our focus is on R&D jobs for software engineers, SQA, marketing, hardware design, engineering management, etc. We're wired into the Mac development community.

Software developers register with Scientific Placement by providing a resumé that is retained in our database. They are then notified whenever a job search overlaps their qualifications and interests. We monitor certain job markets nationally and over the long term.

Interested employers are invited to inquire about our services. Developers wishing to register should send a resumé and call or eMail for a marketability assessment. Our charges are contingent upon a successful placement and are employer paid.

Scientific Placement, Inc.
http://www.scientific.com
800-231-5920 800-757-9003 (FAX) eMail: das@scientific.com

Houston: Box19949, Houston, TX 77224 713-496-6100 Fax 713-496-0373
Silicon Valley: Box 71, San Ramon, CA 94583 510-733-6168 eMail: Beth@spica.bdt.com
Austin: Box 202676, Austin, TX 78720-2676, 512-260-0123 eMail: lej@zilker.net
AOL: davesmall, AppleLink: D1580, Compuserve: 71250,3001

CD-ROM PRODUCTION

CALL US FOR COMPREHENSIVE, QUALITY SERVICE:

- PREMASTERING • ONE-OFFS
- MASTERING AND DUPLICATION
- PACKAGING

DESKTOP CD RECORDERS

Sony 2x, Toast 3.0	$850
Yamaha 4x, Toast 3.0	$1350

We use our own products and service and support them too!

Telephone: 415-961-4649
Fax: 415-962-5333
Internet: sales@catalogic.com
CATALOGIC® 2685 Marine Way • Mtn View, CA 94043
800-255-4020

THE BEST PLACE ON THE WEB TO SHOP FOR ANYTHING COMPUTER RELATED

http://www.zdnet.com/marketplace

ZD Marketplace™ ON THE WEB

Programmers Wanted

MACXPERTS
software design & engineering

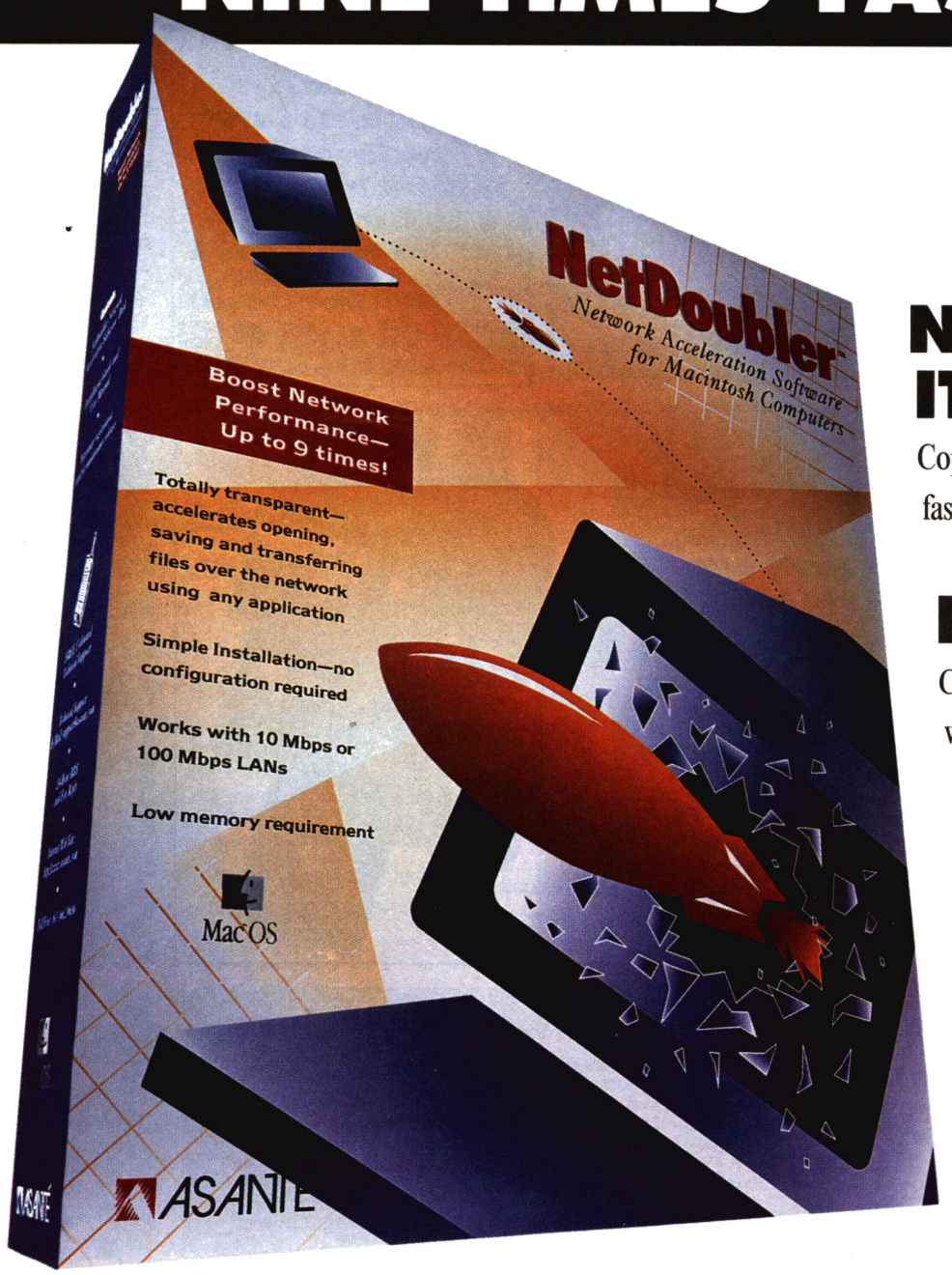
"I can go anywhere with a bike wrench and a few Toolbox calls."
—MacXperts Programmer and biking enthusiast

Programmers and Adventurers Wanted

C, C++, MacApp, OpenDoc, Java, NTK, or 4D with basic to advanced knowledge of the Macintosh Toolbox.
Great environment, salary, benefits, 401K.
Call Mike about the MW72 recruiting ad.
1-800-356-8040 fax / 804-358-3847
http://www.macxperts.com/~xperts
Email:macxperts@aol.com

Classified

TRANSFER YOUR FILES NINE TIMES FASTER.


NetDoubler
Network Acceleration Software for Macintosh Computers
Boost Network Performance— Up to 9 times!
Totally transparent— accelerates opening, saving and transferring files over the network using any application
Simple Installation—no configuration required
Works with 10 Mbps or 100 Mbps LANs
Low memory requirement
MacOS
ASANTÉ

NETDOUBLER. IT'S FAST.

Copies files across your network faster than you can to most hard drives.

IT'S SMART.

Combines the ease of AppleTalk with the speed of TCP/IP.

AND BEST OF ALL— IT'S FREE.

With the purchase of any of our Asanté Fast Ethernet cards. Already got them? Then download NetDoubler™ free at our website.

NEW! Load NetDoubler* on your 100 Mbps Fast Ethernet or 10 Mbps Ethernet Macintosh-based network and watch your file transfers take off—as much as *nine times faster.* Works on all systems running Open Transport, and it's *absolutely free* when you buy Asanté Fast Ethernet cards. Still using 10 Mbps? NetDoubler's only $99 (MSRP) when purchased separately. So download NetDoubler today. Or call Asanté at 1-800-662-9686 Dept. MW-L for complete NetDoubler specs and information.

Download today at www.asante.com**

ASANTÉ
THE FAST ETHERNET EXPERTS

Asanté Technologies, Inc. 821 Fox Lane, San Jose, CA 95131, T: (408) 435-8388.
Fax Reply: (800) 741-8607. E-mail: sales@asante.com Asia T: +886 2 546 1515 F: +886 2 546 1516 Europe T: +44 181 332 1326 F: +44 181 332 1334
Resellers: Asanté products are available from Gates/Arrow, Ingram Micro, Intelligent Electronics, Merisel, MicroAge, Mini Micro and Tech Data. ©1996 Asanté Technologies, Inc.
All brands and products are trademarks or registered trademarks of their respective holders. *Patent Pending. **Full version of NetDoubler available for owners of Asanté Fast Ethernet cards. Demo version available for others.

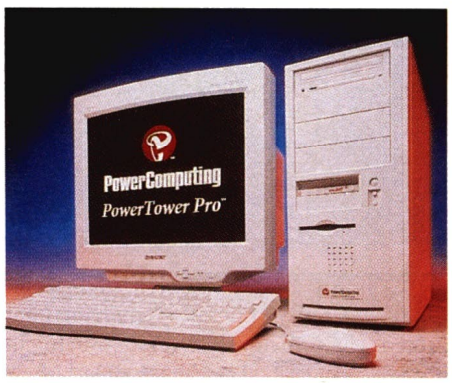
PowerTower *From Page 1*

Tower Pro 225 deliver substantially superior performance at competitive prices. If Apple doesn't move quickly to redress the balance, Mac power users will soon become Power users in droves.

Setting the pace

The PowerTower Pros incorporate the same six-slot logic board, known as Tsunami, as Apple's Power Mac 9500, UMAX Computer Corp.'s SuperMac S900 line and Power's earlier PowerWave line. But the Pro systems represent a major advance in performance compared with their ancestors.

First and foremost, they are the first systems from any vendor to include the most recent addition to the PowerPC family, the 604e. The new chip sports twice as much on-chip (Level 1) cache memory as the original 604: 32 Kbytes each for data and instructions. It is manufactured with the more advanced .35-micron fabrication process, which makes the die smaller and therefore capable of higher clock speeds — in this case, 180, 200 and 225 MHz. To allow it to run at such high frequencies in the Tsunami architecture, which is limited to a maximum system bus speed of 50 MHz, the new chip adds bus dividers — permissible ratios of CPU-to-bus speed — of 4-to-1 and 5-to-1. (The system bus runs at 45 MHz in the PowerTower Pro 180 and 225, and at 50 MHz in the PowerTower Pro 200.)



The PowerTower Pro has six front-accessible bays, two internal bays and a floppy drive bay.

The new processor is one key reason the PowerTower Pros outperform the best the competition currently offers — the Power Mac 9500/150 and the comparable S900 — by 32 percent to 50 percent in MacBench 3.0's Processor test. But there's also another important factor: a full megabyte of Level 2 cache, twice as much as in other Tsunami-based systems. With a CPU as speedy as the 604e, the extra cache makes a surprisingly large difference — about 15 percent on MacBench's Processor test. Power engineers also report that the cache makes a significant difference in many processor-intensive, real-life tasks, but we did not do real-world application testing.

Get the picture — fast

To match their CPU's speed, the PowerTower Pros need fast subsystems, and here, too, Power has come through: The new systems' 7,200-rpm, 2-Gbyte Fast SCSI-2 drives from IBM Corp. delivered exceptional performance in MacBench's Disk Mix and Publishing Disk Mix tests. (We tested with Speed Access, part of Connectix Corp.'s Speed Doubler package, installed because it comes preinstalled on all PowerTower Pro systems.) Also included is an 8x CD-ROM drive — an overdue first for the Mac market — from NEC Technologies Inc.

The PowerTower Pros' graphics performance is even more impressive because one of the fastest PCI display cards around — the Integrated Micro Solutions Twin Turbo 128MB graphics accelerator with 8 Mbytes of video RAM — is standard equipment. The card supports 24-bit color at up to 1,600 by 1,200 pixels on any size display, and it delivers more than twice the performance of the ATI Technologies Inc. card Apple is now shipping in all 9500 configurations.

Finally, the PowerTower Pro's enclosure deserves mention: It offers relatively easy access to the logic board's six PCI slots and 12 dynamic RAM DIMM sockets, as well as to the system's nine storage bays, six of which are front-accessible (four 5.25-inch, two 3.5-inch). All in all, the PowerTower Pro is by far the most expandable Mac OS-compatible ever.

As with previous Power systems, the new towers come with extended keyboards and a bundle of useful software titles. Options available when ordering the system (see chart below) include Iomega Corp.'s Zip and Jaz drives; a $1,295 RAID bundle; and a $1,300 AV bundle that includes the highly rated miroMotion DC20 digital-video card from miro Computer Products Inc. (see MacWEEK, 04.22.96, Page 23).

Conclusions

With base prices ranging from $4,195 to $4,995, PowerTower Pros aren't likely to show up under many Christmas trees next winter. But for professionals who require maximum performance, they represent extraordinary value.

Less than 15 months after it shipped its first system, Power has thrown down the gauntlet to Apple, UMAX and anyone else who cares to join the fray. Now it's up to those companies to respond, or see Power become the dominant player at the high end of the Mac market.

Power Computing Corp. of Round Rock, Texas, can be reached at (512) 388-6868; fax (512) 388-6798, fax-back (800) 788-3783; info@powercc.com; http://www.powercc.com. □

SCORE CARD

PowerTower Pro 180, 220, 225 ◆◆◆◆◆

Power Computing Corp. **Price: $4,195 and up**

Hits: Fast 604e processors, 1-Mbyte Level 2 caches, speedy hard disks, 8x CD-ROM drives and blazingly fast Twin Turbo graphics accelerator; ample expandability.

Misses: Prices, though aggressive relative to Apple's, are still high relative to top-of-the-line Intel-standard PCs.

604e upgrade cards in works

Owners of existing Power systems who lust for PowerPC 604e performance won't have long to wait. In September, Power will ship a 200-MHz 604e upgrade card for $1,195 and a 180-MHz 604e for $895. Also due then are three cards with the original 604 processor: $595 for a 166-MHz CPU, $495 for 150 MHz and $395 for 132 MHz. The cards will be sold only to current Power customers.

Power Computing Towers turn Pro

MODEL	PROCESSOR	CONFIGURATION	EXTRAS*	PRICE
PowerTower Pro 180	180-MHz 604e	16/2GB/8x CD	1MB L2 cache, IMS Twin Turbo w/8MB	$4,195
PowerTower Pro 200	200-MHz 604e	16/2GB/8x CD	1MB L2 cache, IMS Twin Turbo w/8MB	$4,495
PowerTower Pro 225	225-MHz 604e	16/2GB/8x CD	1MB L2 cache, IMS Twin Turbo w/8MB	$4,995

** All configurations also include keyboard, mouse and bundled software.*

OPTIONAL CONFIGURATIONS	ADDITIONS	ADDS TO BASE PRICE
Office	Extra 16MB RAM, Microsoft Office	$395
AV	Extra 16MB RAM, Iomega Jaz drive, miroMotion DC20 digital video card, Adobe Premiere LE and Photoshop LE	$1,300
RAID	Adaptec Ultra SCSI adapter, SoftRAID software, second 2GB drive	$1,295

MACWEEK MACBENCH 3.0 LABS

PowerTower Pro line

With fast drives, a blazing graphics accelerator and an 8x CD-ROM drive, PowerTower Pros earn top scores on all tests.

Processor speed in decimal math

Floating Point test	6100/60*	Higher score is better
PowerTower Pro 180		39.9
PowerTower Pro 200		44.2
PowerTower Pro 225		49.0
Power Mac 9500/150		29.8

Disk speed typical of general-purpose software

Disk Mix	6100/60*	Higher score is better
PowerTower Pro 180		45.8
PowerTower Pro 200		47.7
PowerTower Pro 225		47.4
Power Mac 9500/150		30.9

Disk speed typical of QuarkXPress and Adobe Photoshop

Publishing Disk test	6100/60*	Higher score is better
PowerTower Pro 180		21.4
PowerTower Pro 200		21.7
PowerTower Pro 225		21.7
Power Mac 9500/150		17.5

Graphics speed typical of general-purpose software

Graphics Mix	6100/60*	Higher score is better
PowerTower Pro 180		120.1
PowerTower Pro 200		122.9
PowerTower Pro 225		126.9
Power Mac 9500/150		47.2

Graphics speed typical of QuarkXPress and Adobe Photoshop

Publishing Graphics Mix	6100/60*	Higher score is better
PowerTower Pro 180		85.0
PowerTower Pro 200		87.5
PowerTower Pro 225		89.7
Power Mac 9500/150		36.2

CD-ROM speed typical of general-purpose software

CD-ROM Mix	6100/60*	Higher score is better
PowerTower Pro 180		113.3
PowerTower Pro 200		113.1
PowerTower Pro 225		112.9
Power Mac 9500/150		16.9

Test configurations: All systems were tested with System 7.5.3. The PowerTower Pro 200 and the Power Mac 9500 had 16 Mbytes of RAM; the 180- and 225-MHz PowerTower Pro models had 32 Mbytes of RAM. All four machines had 1-Mbyte Level 2 caches and 2-Gbyte hard drives. Monitor resolutions were set to 640 by 480 pixels in eight-bit color.

*MacBench 3.0's score compares speed to a Power Mac 6100/60, which receives a 10.

GeoPort to reach 28.8 Kbps

By Joanna Pearlstein

The GeoPort, Apple's beleaguered high-speed communications port, this fall may achieve the 28.8-Kbps speeds its users have long sought.

Apple Telecom 3.0, which includes support for 28.8-Kbps connections through the GeoPort Telecom Adapter, is finished and will ship early this fall as a free download, Apple said.

However, 28.8-Kbps throughput will require a Power Mac, sources said, and full 28.8-Kbps connections will be achieved only through clean phone lines. A forthcoming GeoPort Telecom Adapter II will also add Caller ID support.

The delay in the 28.8-Kbps software for GeoPort and Apple's withdrawal from the Versit consortium last spring led some to believe that Apple had abandoned the technology. But at the Apple Worldwide Developers Conference in May, Apple said the technology was "alive and kicking" and that the update would ship this summer.

Apple Telecom 3.0 will reportedly include a new voice-software package called ApplePhone. The product reportedly supports multiple voice-mail boxes, scripting, integration with Apple Telecom's address book and paging notification.

While GeoPort users heralded the reported imminent arrival of the 28.8-Kbps software, many said they are frustrated with the software's late appearance, and as a result, some have abandoned the GeoPort for regular modems.

"I feel completely burned by the lack of software upgrades," said Nathan Watson, a medical student at Stanford (Calif.) University. "I thought the 28.8 upgrade would be out last year. Instead, 28.8 is on the verge of being obsolete, and the upgrade is still unavailable."

Cris Graffa, a design specialist at National Computer Systems in Columbia, Pa., replaced his GeoPort with a regular modem when he grew tired of waiting for the 28.8-Kbps software. "I wanted to keep the GeoPort, but now it's packaged and stored away waiting for Telecom 3.0," Graffa said. "Do you know anybody who wants to buy it cheap?" □

Vertigo

From Page 1

In addition to traditional modeling tools, Vertigo will include bicubic patches, metaballs and NURBS (nonuniform rational B-splines). Users will be able to modify 3-D objects through user-definable effectors, such as joints, magnets, wind and waves; they will also be able to apply several types of deformations.

Vertigo 3D will offer hierarchical keyframe animation in spline, linear or functional modes. Other animation capabilities will include interobject dependencies, morphing, path animation, rotoscoping, tempo controls and motion capture. Users will be able to animate an unlimited number of cameras and light sources, and the software will include compositing effects.

"It's so elegant and simple that I kind of blast through it, like you'd blast through a riff in a jam session," said George Holmes, owner of Holmes Animation in Oklahoma City. "Most people use Macs for the same reason, and that's why I think it will translate so well."

Holmes has used the SGI version for six years to create broadcast-TV animation for clients such as ESPN and the Prevue Channel. "For what I do, it stacks up with everything else on the SGI," he said. "I can do everything with Vertigo that I've ever needed to do."

Vertigo 3D will use the RenderMan shading system, which the company has licensed from Pixar of Richmond, Calif. RenderMan has been absent from the Mac market since Pixar halted MacRenderMan development last year. Vertigo 3D's support for renderers of QuickDraw 3D plug-ins will enable it to work with other renderers in future versions, including one from LightWork Design Ltd. of Sheffield, England. Vertigo 3D will also support Apple's 3DMF (3-D metafile format) and QuickDraw 3D hardware acceleration, Vertigo said.

Vertigo 3D will include libraries of shaders, textures and models. Additional modules will cost between $79 and $179.

According to Vertigo Senior Vice President Linda Fawcus, the company has tried to give Vertigo 3D a true Mac interface. In particular, it has looked for ways to ease the transition from 2-D to 3-D for Mac users.

"We're going to allow new-media-type people to access Pantone color libraries to get shaders and attributes to look like they should," Fawcus said. "We're supporting [Adobe] Photoshop file output with layers.

"We want to integrate smoothly and not be a jarring, jolting 3-D package," she said.

Users will be able to move files created on the Mac to the SGI version and back again, Vertigo said, so users could render their work on a faster SGI machine.

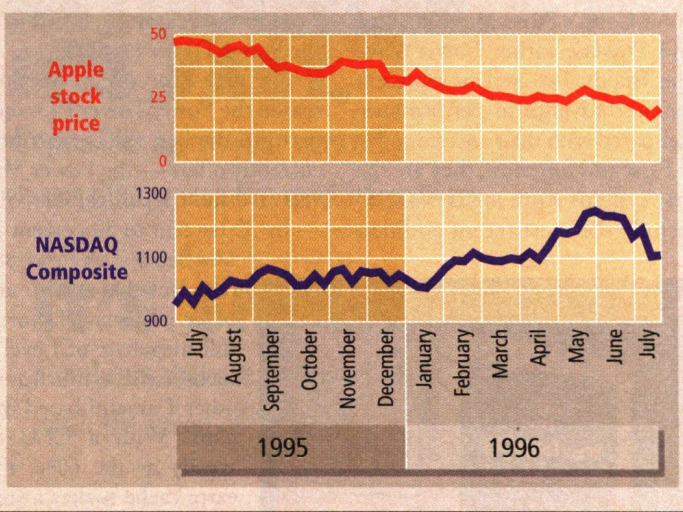
As Macs get faster and more powerful, Vertigo and other SGI vendors are taking the Mac plunge. "Apple's finally got the hardware for us to move it to the Power Mac," Fawcus said.

In addition, Cinebase Software Inc. of Los Angeles is working on a Mac version of its digital video asset-management system. According to sources, Spatial Technology Inc. of Boulder, Colo., is also working on a Mac version of its SGI graphics package.

Vertigo Technology Inc. of Vancouver, British Columbia, is at (604) 684-2113; fax (604) 684-2108; linda@vertigo.bc.ca; http://www.vertigo.bc.ca. □

APPLE AND NASDAQ: TWO BUMPY RIDES

Last week's quarterly results gave Apple's stock a much-needed lift. Despite historic gains in NASDAQ, Apple's public shares fell dramatically during the past year. Before Apple revealed its better-than-expected loss, Motorola Inc., Hewlett-Packard Co. and Digital Equipment Corp. reported disappointing earnings. So far this month, Wall Street has hammered the prices of most technology stocks, driving Apple's to a 10-year low. Intel Corp.'s surprisingly good results last week — net income topped $1 billion for the quarter — helped reverse the broad slide in the NASDAQ.



Results

From Page 1

The results announced at close of market July 17 were much better than analyst predictions. Forecasts put losses between $100 million and $240 million for the quarter. The results were also much better than the previous quarter, when Apple posted record losses of $740 million.

According to Apple Chief Financial Officer Fred Anderson, the better-than-expected numbers were a result of the successful implementation of CEO Gilbert Amelio's restructuring plan, which was announced in April (see 04.01.96, Page 1).

During a conference call with financial analysts and the news media, Anderson said the company saved $35 million in operating costs, partly through reductions in staff and improved assets management.

Employee head count was reduced by nearly 1,800 during the third quarter, Anderson said. The reduction included about 1,000 employees transferred to Huntsville, Ala.-based SCI Systems Inc. following the April sale of Apple's manufacturing plant in Fountain, Colo.

Apple also earned $39 million from the sale of its investments in America Online Inc. of Vienna, Va.; operating losses without the one-time income were $116 million. Other savings included a $19 million tax benefit, without which the pre-tax revenue loss would have totaled $151 million.

The operating savings resulted in gross profit margins of 18.5 percent, compared with 9 percent for the previous quarter. Inventory was down to $1.06 billion, compared with $1.5 billion in the second quarter. And Apple's ready cash totaled $1.359 billion, also much higher than anticipated by analysts.

During the conference call, Apple executives reiterated recent statements that the company would not return to profitability until the second quarter of 1997.

Apple Chief Operating Officer Marco Landi said quarterly revenues would have been higher if not for the PowerBook recall in May (see 05.13.96, Page 1). He said PowerBook shipments typically accounted for 14 percent of the company's total units but dropped to 8 percent during the third quarter. However, Landi would not say when PowerBook shipments would return to pre-recall levels.

Landi did, however, confirm reports that the company will introduce a new line of high-end PowerBooks in the fall and new computers across the board during the first two quarters of 1997 (see 05.13.96, Page 1 and 05.06.96, Page 1).

Analysts expressed surprise at the results.

"I'm encouraged by the comeback," said Pieter Hartsook, publisher of the Hartsook Letter, a newsletter based in Alameda, Calif. "The new management is obviously very much in control. They've doubled their margins and cut operating costs in half; that's a very good showing," he said.

Hartsook also pointed out that the company might have broken even if not for the PowerBook recall, which Apple's Anderson estimated cost the company $100 million.

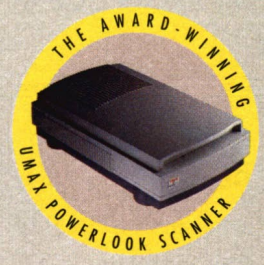
Kurt King, an analyst at Montgomery Securities Inc. of San Francisco, said he was also impressed with what he called "the solution to their short-term problems."

King said Apple now needs to recapture lost market share, stem the "brain drain" of executives and engineers, and encourage software vendors to continue developing products for the Mac OS. "Improving gross margins doesn't mean all their business problems have been solved," King said.

Tim Bajarin, president of Creative Strategies Inc. of San Jose, Calif., said he was optimistic about the company's future. "Amelio's obviously moving things in the right direction," he said.

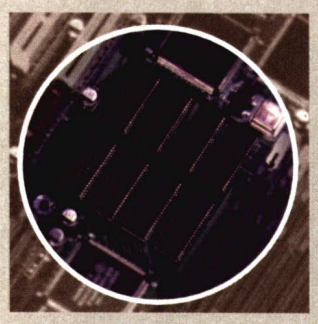
Upon news of the results, Apple's stock rose 4 points to $20.88 by midafternoon July 18. It was previously at a 10-year low of $16.88. The results moved many Wall Street brokerages to revise their ratings: Apple was promoted from an underperformer to a hold, and even a buy. □

For years, creative professionals have relied on award-winning UMAX scanners to capture the high quality images they demand as an essential part of their creative solutions. Now, UMAX has come full circle by offering them the ultimate computers on which to realize their vision...



Introducing the SuperMac S900

Designed from the ground up specifically to meet the needs of the design professional. We've kept all the best things you like — the familiarity and ease-of-use of Mac OS and compatibility with all your favorite software — wrapped it all up with the raw power of a 604 150MHz PCI-based design and delivered it at a price that can't be beat. Many unique features of the new S900 have been designed to specifically eliminate performance bottlenecks that have long troubled the market.

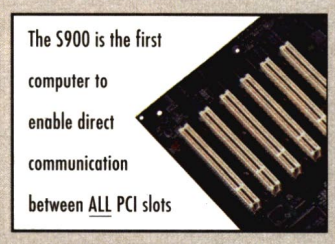


1 Interleaved Memory

Every S900 comes standard with 16MB of interleaved memory on the motherboard for fast memory access and best system performance. Others require the purchase of additional DIMMs to implement memory interleaved.

3 Exclusive PCI-to-PCI Bridge

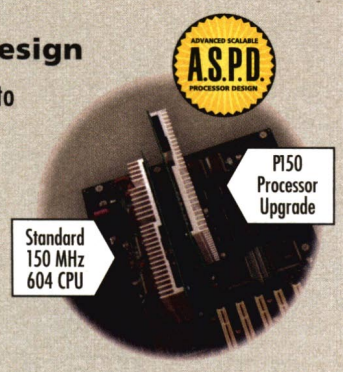
Not only does the S900 have an amazing 6 PCI slots, it is also the first to enable burst communication between them.



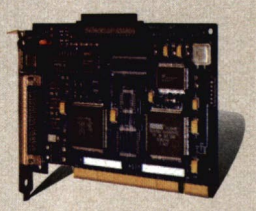
UMAX's exclusive PCI-to-PCI Bridge design enables direct communication between all PCI cards with the greatest performance, no matter which slots they're inserted in, also making it more expandable and easier to configure.

2 Advanced Scalable Processor Design

UMAX's exclusive A.S.P.D. provides easy upgradeability to dual processors or for higher speed processors as they become available. This modular configuration costs less and is far more flexible, allowing programs such as Photoshop to increase its performance up to 80% with the addition of a second processor card.



4 E100 I/O & Networking Card



To increase performance even further, UMAX offers the ultimate combination upgrade that gives you both Ultra-Wide SCSI and 100Base-T on one easy-to-install PCI card. The 100Base-T boosts data transfer over networks up to ten times the speed of standard 10Base-T connections. Ultra-Wide SCSI provides 16-bit wide data access at rates up to 40MB/sec. (4 times the speed of regular SCSI)

	MODEL		Processor Type	CPU Speed	Hard Drive Capacity	PCI Slots	Onboard RAM	Level2 Cache	CD ROM Drive	Graphics Card	Drive Bays	PRICE*
1	SuperMac S900L	Tower	604	150 MHz	2 Gbyte	6	16 MB	512 K	8x Speed	4MB VRAM	5	$ 4395

* Suggested Retail Price

	UPGRADE OPTIONS		PRICE*
2	SuperMac E100	Extended Performance Ultra-Wide SCSI / 100Base-T	$ 495
3	SuperMac P150	604-150 ASPD Processor Upgrade	$ 995

* Suggested Retail Price

BUNDLED SOFTWARE ▸ Mac OS

▸ Conflict Catcher 3.0™ ◂ FWB CD-ROM & HDTool Kit™ ◂

▸ ASANTÉ Net Doubler™ ◂ MICROMAT TechTool™ Diagnostic ◂

SUPERmac®
Computers that Work the Way You Do.
▸ http://www.supermac.com

UMAX® Computer Corporation

FOR MORE INFORMATION CALL: 1-800-232-UMAX

© 1996 All rights reserved. SuperMac logo is licensed exclusively to UMAX Computer Corporation. ▸ Headquarters and Sales: 47470 Seabridge Dr. Fremont CA 94538. Fax: (510) 623-7350 ▸ Engineering: 4800 Great America Parkway, Ste.#200 Santa Clara, CA 95054 Tel: (408) 327-8700 .

OpenDoc

From Page 1

Objects created with OpenDoc.

Netscape Communications Corp. of Mountain View, Calif., already uses the name Live Objects for its in-line applications and viewers, but Apple said the technologies are not related. Component Integration Labs Inc., the Sunnyvale, Calif.-based consortium that owns and promotes OpenDoc, said it holds the worldwide trademark for Live Objects.

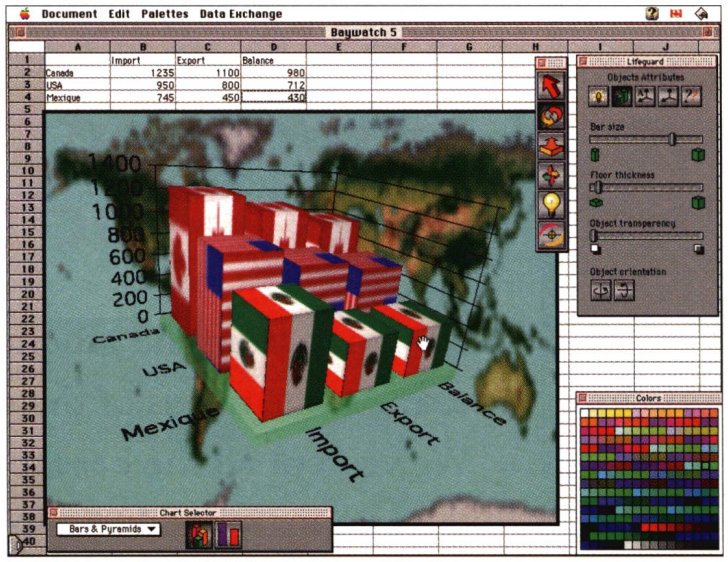
At the expo Apple intends to take the wraps off the latest editions of OpenDoc and Cyberdog and unveil its Apple Live Objects suite.

Apple said OpenDoc 1.1 will run faster, require less RAM and include a handful of bug fixes. Cyberdog 1.1 will finally run on 68040-based Macs, but the company is still exploring whether Cyberdog will run on other 680x0 systems. Version 1.1 will work with Netscape Navigator plug-ins, so users will be able to use the Web browser add-ons within Cyberdog, and gain Mac LAN features, such as browsing AppleTalk networks and mounting AppleShare volumes.

Apple Live Objects, which is a bundle of parts previously called KickStart, will debut at the show with OpenDoc text and drawing editors as well as viewers for QuickTime, QuickTime VR and QuickDraw 3D.

The company will also have on hand tools for integrating OpenDoc with other components. In its booth, Apple plans to show a Java-applet viewer, which the company said will provide a wrapper around Java programs so they can run inside OpenDoc components. Apple will also show the Mac version of ComponentGlue, which lets OpenDoc and OLE containers interact, while IBM Corp. of Armonk, N.Y., will demonstrate OpenDoc for Microsoft Windows.

CI Labs will join the party by rolling out its Live Objects Validation software, which tests interoperability. If a component passes, it will be given a CI Labs seal of approval and the right to use the Live Objects label.



Adrénaline plans to speed up users' heart rates with its upcoming 3-D spreadsheet and charting Live Objects parts.

An armful of third-party developers will also use the expo to show off their OpenDoc wares:

- **Adrénaline Software Inc.** of Sainte-Foy, Quebec, will unveil its spreadsheet part, Adrénaline Numbers, and Adrénaline Charts, its charting part. It said it expects to ship both parts in January 1997.
- **Claris Corp.** of Santa Clara, Calif., will show ClarisWorks 5.0 working with Live Objects (see 02.26.96, Page 4).
- **ComGrafix Inc.** of Clearwater, Fla., will debut GeoInsight, a set of Geographic Information System OpenDoc parts that will let users associate data with maps. The company is also working on a part that will track vehicles by satellite. ComGrafix said it expects to ship GeoInsight early in 1997.
- **Corda Technologies Inc.** plans to ship its own table-editing and graphing parts. C-Graph, the data-graphing component from the Highland, Utah-based company, will create charts in any OpenDoc document. C-Table will let users create and edit tables.
- **Corel Corp.** will demonstrate an OpenDoc container version of its WordPerfect software. Ottawa-based Corel said the OpenDoc version will ship later this year.
- **Digital Harbor** of Lindon, Utah, plans to ship Wav, its OpenDoc-based word processing application, formerly code-named Opal (see 05.13.96, Page 4). Wav will be a root part, so users will be able to embed other OpenDoc parts in Wav as well as place Wav in other OpenDoc components.
- **dtF Americas Inc.** said it will ship its dtF Database Toolkit, a suite of OpenDoc parts for linking applications with databases. The tool kit from the Cupertino, Calif.-based company will let users link to SQL relational databases and run queries.
- **MetaMind Software Inc.** of Mill Valley, Calif., will release at the expo a free stripped-down version of its upcoming Page Composer page-layout program, which is an OpenDoc container. MetaMind said it intends to ship a Page Composer containing more features in the winter of 1997.
- **Spyglass Inc.** of Naperville, Ill., will show its large collection of Internet-client parts (see 04.15.96, Page 1).
- **SoftLinc Inc.** of Marco Island, Fla., will roll out Lexi, its suite of word processing tools that includes a spelling checker, thesaurus and translation dictionary. The company said it plans to ship a U.S. version shortly after the show and then offer versions in other languages, including French, German and Italian, by the end of the year.
- **Worldsoft Corp.** will debut the OpenDoc version of WorldWrite. The Saratoga, Calif., company said it is remaking its multilingual word processor into a container and expects to ship the update by the end of the year. □

MP

From Page 1

Mac OS clone (see 06.03.96, Page 29). The nPower 360+ will replace the primary single-processor card; UMAX of Fremont, Calif., will also offer its own dual-processor card that fits into a proprietary slot on the logic board.

DayStar will be joined at the expo by other vendors with multiprocessor, or MP, systems. Power Computing Corp. of Round Rock, Texas, said it expects to demonstrate a dual-processor card running in the new PowerTower Pro models (see review, Page 1).

Apple will reportedly show its own dual-processor card. Sources said the company will not initially offer it as an upgrade card to current Power Mac users; instead, it will offer new MP configurations.

Although Apple declined to comment on specific MP hardware plans, the company said it is committed to the MP architecture developed by DayStar. According to Jason Wallace, MP evangelist at Apple, the company expects to ship its software development kit at the expo.

Wallace said Apple is seeking software support for the MP API in new product areas, such as science and technology, CAD, games, and programming tools.

"DayStar gets the kudos for hitting up the graphics developers — we're furthering the process," he said.

MetaTools Inc. of Carpinteria, Calif., is slated to demonstrate at Macworld Expo a new MP-savvy version of Final Effects, a suite of plug-ins for Adobe After Effects.

DayStar said new MP-savvy software will include The Animation Stand, a 2-D animation and special-effects system from Linker Systems Inc. of Irvine, Calif.; HoloDozo, 3-D plug-ins from M.M.M. Software of Hanover, Germany; and Professional AutoTrapper, a PostScript Level 2 RIP and trapping application from Professional Computer Corp. of Langhorne, Pa.

In addition, DayStar recently released its free MP Plus Pack, accelerated versions of the Crystallize, Lens Flare, Lighting Effects, Pointillize, Radial Blur and Wind filters that ship with Adobe Photoshop. DayStar said the MP versions offer up to three times the speed of the standard versions.

Developers said MP will need a boost from tools developers for widespread acceptance. The pre-release debugger in CodeWarrior 9 from Metrowerks Inc. of Austin, Texas, supports both Mac OS 8, code-named Copland, and MP APIs.

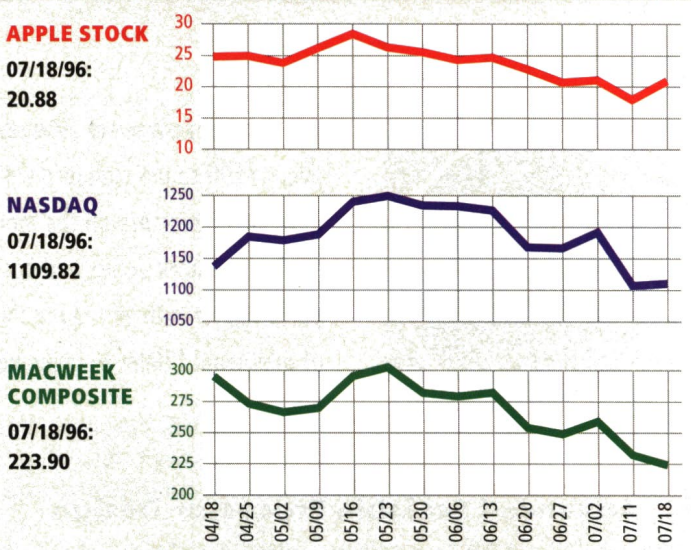
"Until the debugger, it was nearly impossible to do any work," said Berardino Baratta, engineering manager for Metrowerks.

According to Baratta, Version 10 of CodeWarrior may add nothing new for MP developers. However, Version 11, expected to be seeded to beta sites in September and ship in January 1997, will offer a fully integrated development environment for MP. It will also add a compiler and a profiler for all pre-emptive processes and will be accelerated for MP.

"What you write today will work tomorrow, and it will just get better," Baratta said. □

Rebecca Gulick contributed to this report.

StockWatch



	07.18.96 CLOSE	WEEKLY CHANGE
Apple	20.88	3.00
MacWEEK Composite*	223.90	-8.19
SOFTWARE DEVELOPERS		
Adobe	32.25	2.75
Caere	11.50	0.75
CE Software	1.38	-0.25
Fractal	12.75	1.13
Graphsoft	8.00	-0.25
Insignia	7.13	0.50
Intuit	37.88	-2.88
Macromedia	19.75	4.88
Microsoft	119.88	5.38
Novell	11.69	-0.94
Oracle	38.00	0.38
Symantec	10.06	0.19
STORAGE		
Iomega	28.00	0.88
Pinnacle	7.00	-0.25
Quantum	13.13	-0.88
Seagate	42.38	0.25
SyQuest	7.19	-0.19

	07.18.96 CLOSE	WEEKLY CHANGE
PERIPHERALS VENDORS		
AmeriQuest	0.69	0.00
Asanté	6.38	-0.50
Focus	2.44	0.31
Global Village	8.00	0.50
HP	43.88	3.13
QMS	5.75	0.25
Radius	2.69	0.00
Shiva	68.75	-13.00
Tektronix	40.38	-0.38
Truevision	7.25	-0.25
DISTRIBUTORS		
CompUSA	35.88	3.63
IE	6.06	-1.06
Merisel	3.50	0.50
Tech Data	18.75	-0.38
INDUSTRY INDICATORS		
Compaq	48.13	4.50
IBM	94.25	-1.75
Intel	72.50	3.00
Motorola	55.38	-0.50
SGI	23.25	1.13
NASDAQ	1109.82	3.46

**The MacWEEK Composite is calculated by adding the stock prices of the following companies: Apple, Adobe, Asanté, Caere, CE Software, Global Village, Intuit, Macromedia, Radius, Shiva, SyQuest and Truevision. Source: Nordby International Inc.*

Tonight and every night.

A full hour of prime time programming about the digital revolution. News about computing technology from the human point of view.

ZDTV
Ziff-Davis Television

Every night at 10pm and 1am Eastern time, 7pm and 10pm Pacific time on MSNBC, the 24-hour cable news channel. Also on the Web at

www.thesite.com

MSNBC

Removable one-gig disks,
unlimited space,
fast as a hard drive.

The cat can rip it up.

For the nearest dealer, call:
888-2-IOMEGA, ext. j08
Or see us at: www.iomega.com

jaz drive
$499

No matter how jazzy your presentation, the Jaz™ drive can handle it: graphics, sound, video, the works. Just connect it to your Mac or PC and its one-gig cartridges can store all your stuff. And it's so fast, you can present right off it. Let me tell you, the cat's got stage presence.

The Unlimited Personal Hard Drive.
Endless storage space.
Load and edit projects instantly.
Goes anywhere you go.

1GB disks for $99.95.
Compact one-gigabyte cartridges.
Great for graphics, sound, and video.
Portable files. Fast, easy backup.

BECAUSE IT'S YOUR STUFF.™

iomega™

© 1996 Iomega Corporation. Iomega is a registered trademark, and the Iomega logo and Jaz are trademarks of Iomega Corporation.
Waldren "Frog" Joseph as photographed by Lee Crum.

Prices listed are estimated street prices. Actual prices may vary.

Performa

From Page 1

Kbps modem from Global Village Communication Inc. of Sunnyvale, Calif. The 6400 will be based on a logic-board design code-named Alchemy, first introduced in the Power Mac 5400 (see 05.13.96, Page 29).

Designed to compete with tower-style Intel-based PC systems, the 6400 will reportedly offer several features aimed at multimedia enthusiasts, including a built-in sound system, video capabilities and space for Apple's TV Tuner.

Sources said the machine will feature Sound Retrieval System 3-D sound as well as an integrated subwoofer. One source familiar with the 6400 called its sound system "too cool to believe." The system will support 16-bit sound-in and -out, sources said. The TV Tuner option will let users watch TV programming and use the infrared port for remote control, sources said.

In addition, sources said, one configuration may offer a low-end video-editing system code-named San Francisco and expected to ship under the name Cinema. The package will consist of a PCI card and software developed in conjunction with Avid Technology Inc. of Tewksbury, Mass.

Cinema will take users through each step of the video-editing process. It will also include templates for common video projects, according to sources. The PCI card will reportedly connect to a card in the 6400's DAV slot.

Both configurations of the 6400 will reportedly come with 16 Mbytes of dynamic RAM, which can be expanded up to 136 Mbytes. The 180-MHz configuration will reportedly include a 1.6-Gbyte Enhanced IDE (Integrated Drive Electronics) hard drive, while the 200-MHz system will have a 2.4-Gbyte drive. The 6400 will also boast an 8x CD-ROM drive.

Both systems will come with 1 Mbyte of video RAM. A 256-Kbyte Level 2 cache will reportedly be standard on the 200-MHz system and optional on the 180-MHz 6400.

The 6400 is expected to stack up nicely against similar models reportedly due in August from UMAX Computer Corp. of Santa Clara, Calif., and Power Computing Corp. of Round Rock, Texas. Sources said Power will release models comparable to the 6400, which is priced at less than $2,000.

Apple declined to comment. □

Advertiser Index

Apple 8-9, 11
APS Technologies 34-37
Asanté Technologies....66
ClubMac....42-43
Computer Discount Warehouse....22-23
Corel....78
CRA....45
Dantz....30
Direct Connections....38
DirecTech....48
EarthLink Network....17
Farallon....5
4-Sight, L.C.....19
GDT Softworks....13
Iomega....72
La Cie....40-41
The LLB Co.....46-47
MAC Xtra....49
MacSale International....56
MacTemps....18
MacZone....33
Megahertz....7
Microsoft....24
Newer Technology....74
Nisus....29
Peripheral Outlet....53
Pinnacle Micro....15
Power Computing....75-77
ProDirect....44
Shreve Systems....59
SoftArc....2
Tahoe Peripherals....51
Texas Instruments....39
UMAX Computer....69
Viewsonic....27

MacWEEK sales offices

John Blake
Group Publisher
(415) 378-6929
(617) 393-3075

William P. Howard
Group Associate Publisher
(415) 378-6959

Cheri L. McKeithan
Group National Sales Manager
(415) 378-5680

MarketPlace
(800) 825-4237

Display ads

Northeast[1]

Sharon Kiernan
District Sales Representative
(617) 393-3060

Heather McKee
Account Executive
(415) 378-5640

Northwest[2]

Laura Goodwin
District Sales Representative
(415) 378-5605

South Bay[3], Nevada

Chris Marrow
District Sales Representative
(415) 378-5651

Christine Perry
Account Executive
(415) 378-5630

Southwest[4]

Dan Hudson
District Sales Representative
(310) 268-1376

Mid-Atlantic/ Southeast[5]

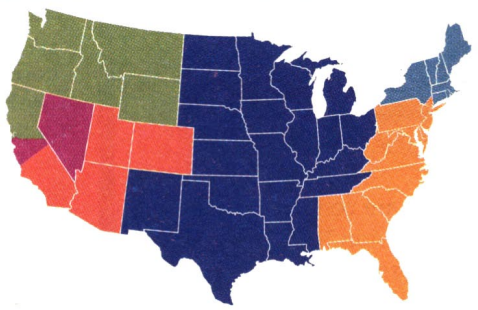
Melinda Martin
District Sales Representative
(617) 393-3692

James Loza
Account Executive
(415) 378-5677

Midwest

Tom Hernandez
District Sales Manager
(312) 214-7343

Christopher Lindberg
Account Executive
(415) 378-5622



[1] Includes New Brunswick, Newfoundland, Prince Edward Island, Quebec, Manitoba and Ontario, Canada

[2] Includes Northern California north of San Mateo; Alaska; and Alberta and British Columbia, Canada

[3] Includes San Francisco Bay Area south of the San Mateo Bridge to San Luis Obispo

[4] Includes Southern California south of San Luis Obispo, Arizona, Utah and Colorado

[5] Includes New York metropolitan area

Ziff-Davis Publishing Co.

Chairman and CEO Eric Hippeau
President, U.S. Publications Ronni Sonnenberg
President, Interactive Media and Development Group Jeffrey Ballowe
President, International Media Group J.B. Holston III
President, Computer Intelligence/Infocorp Bob Brown
President, Training and Support Publishing Group William Rosenthal
Vice President, Chief Financial Officer Timothy O'Brien
Vice President, General Counsel and Secretary J. Malcolm Morris
Vice President, Human Resources Rayna Brown
Vice President, Planning Daryl R. Otte
Vice President, Production Roger Herrmann
Vice President, Controller Mark Moyer
Treasurer Thomas L. Wright

U.S. PUBLICATIONS GROUP
President, U.S. Publications Ronni Sonnenberg
President, Business Media Group Claude Sheer
President, Consumer Media Group J. Scott Briggs
Senior Vice President, Consumer Advertising Lawrence C. Burstein
Senior Vice President, Circulation Baird Davis
Executive Vice President, Business Media Group Don Byrnes
Vice President, Business Manager Tom McGrade
Vice President, Marketing Services Jim Manning
Vice President, Central Advertising Sales Bob Bader
Vice President, Product Testing Mark Van Name
Vice President, Circulation Services James F. Ramaley
Vice Presidents Al DiGuido, Michael Miller, Paul Somerson
Executive Director, Licensing Gertrud Borchardt
Director, ZD Labs Bob Kane
Director, Benchmark Operation Bill Catchings

ZIFF-DAVIS MAGAZINE NETWORK
Vice President/Managing Director Joe Gillespie
Executive Director Alicia Saribalis
Marketing Director Mike Perkowski
Directors Ken Beach, Michael Bird, Jeff Bruce, Kelly Lowman, Melinda Maginn, Debbie Moss, Julie Tuttle

INTERACTIVE MEDIA AND DEVELOPMENT GROUP
President Jeffrey Ballowe
Executive Vice President David Shnaider
Executive Vice President, Internet Publishing Group Daniel Rosensweig
Vice President, Business Development Tom Thompson
Vice President, Editor in Chief, ZD Net Daniel Farber
Vice President, General Manager, ZDNet James Savage
Vice President, ZDTV Richard Fisher
Vice President, Creative Services Herbert Stern
Vice President, Research Elda Vale
Editorial Director, New Products Bill Machrone
Group Business Manager Jocelyn Grayson
Director, Public Relations Gregory Jarboe

Ziff-Davis Publishing Co., a Softbank Company

Products in this issue

COMMUNICATIONS HARDWARE
Apple GeoPort Telecom Adapter....68

COMMUNICATIONS SOFTWARE
Apple Apple Telecom 3.0....68
Qualcomm Eudora Pro 3.0....19
TechPool StellerFax....19

COMPUTERS & SYSTEM SOFTWARE
Apple Instatower, Performa 6400, PowerBook....1
Apple Open Transport....14
Apple OpenDoc, Live Objects....1
Apple Power Mac 7600/132, 8500/150....4
IBM PowerPC 604e chip....3
Power Computing Power Tower Pro 180, 200, 225....1

DATABASES & DATABASE TOOLS
dtF Americas Database Toolkit....1
EveryWare Tango....31
Foresight NetLink/4D....31
Helix Helix Express 4.0....4
Web Broadcasting Web FM....31

DESKTOP PUBLISHING & TYPOGRAPHY
Adobe Adobe Type Library Type 1 typefaces, Type on Call CD-ROM....12
Agfa Agfa Type Collection 7.0....12
Deniart Astrologer series, Ancient Writings Volume II series, Egyptian Hieroglyphics Volume IV....12
Font Bureau Hightower, FB Reactor, Shogun, SamSans typefaces....12
International Typeface Rennie Mackintosh typefaces....12
MetaMind Software Page Composer....1

GRAPHICS HARDWARE
Data Translation Media 100 video board....6
Kodak DC-20....28

GRAPHICS SOFTWARE
Chroma Graphics Chromatica....12
DayStar MP Plus Pack....1
JVC XPosure....10

INTERNET ACCESS
Apple Cyberdog....1
Hewlett-Packard JetAdmin....14
Maxum Rush Hour....74
Quarterdeck MacHTTP 2.2....16
Quarterdeck WebStar....16, 74

INTERNET AUTHORING TOOLS
Adobe PageMill....21
Bare Bones BBEdit....21
Claris Claris Home Page....25
Macromedia AppletAce....16
Open Door Networks HomeDoor....14
Pacific Coast Software WebCatalog, WebMerchant....32
Pantone ColorWeb....14

MULTIMEDIA
Apple QuickTime 2.5....10
Fractal Design SuperMesh....10
Linker Systems The Animation Stand....1
MetaTools Final Effects....1
MetaTools Kai's Power Goo....28
M.M.M. Software HoloDozo....1
Quark QuarkImmedia....25
Vertigo Technology Vertigo 3D....1

NETWORKS
Dartmouth College InterMapper....19
Insignia NTrigue Net Client....14
International Transware InterTalk MP....16

NUMERIC TOOLS & CHARTING
Adrénaline Software Adrénaline Numbers, Adrénaline Charts....1
ComGrafix GeoInsight....1
Corda Technologies C-Graph, C-Table....1
Profunda Storeys....4

PRINTERS & PRINTING TOOLS
Professional Computer Professional AutoTrapper....1
YARC YARC RIP Lite....10

PRODUCTIVITY APPS
Claris ClarisWorks 5.0....1, 74

PROGRAMMING/ DEVELOPMENT TOOLS
Apple AppleScript....21
Apple ATM Application Jump Start Program....16
Bare Bones Bare Bones 4.0.1....6
Metrowerks CodeWarrior....1
Natural Intelligence Roaster....16
Nisus QUED/M 3.0....6
UserLand Frontier 4.0....21, 25

SCANNERS & OCR
Caere OmniForm....3
Polaroid SprintScan 35/LE, SprintScan Plus....10
UMAX Vista-S6E, Vista-S12....6

SOUND & MUSIC
Apple Interactive Music Toolkit....10

SYSTEM ENHANCEMENTS
Adaptec IEEE 1394 PCI card....6
DayStar nPower 360+....1
Power Computing 604, 604e upgrade cards....67
PowerLogix Mach 9....4
PowerTools PowerSource 604/150, 604/160, 604e/200....4
Syncronys SoftRAM96....74
XLR8 PowerEdge cards....4

UTILITIES
Connectix RAM Doubler 2.0....4

WORD PROCESSING
Corel WordPerfect....1
Digital Harbor Wav....1
SoftLinc Lexi....1
Worldsoft WorldWrite....1

MacWEEK Reprints
For Reprint Price Quotes
Call (800) 625-4237

Contacting the editors

News
Stephen Howard, executive editor
(415) 243-3551
stephen_howard@zd.com

MacWEEK Online
Marty Cortinas, associate news editor/online
(415) 243-3574
marty_cortinas@zd.com

Reviews
Carolyn Said, executive editor
(415) 243-3546
carolyn_said@zd.com

Solutions and Extras
Catherine LaCroix
(415) 243-3512
catherine_lacroix@zd.com

MacWEEK Guides and special projects
Anita Malnig, director/editorial programs
(415) 243-3523
anita_malnig@zd.com

I'm waiting for my Mac

Age and experience have taught the Knife that perfection is a goal rarely attained in this world. The Velvet Underground's first album, Barcelona's Joan Miró museum and Apple's IIGS notwithstanding, most human endeavors fall short of the sublime.

Surrender Dorothy

Take Claris, which seems to be having some difficulty finding its OpenDoc parts with both hands. Crimping the company's efforts to recast ClarisWorks 5.0 as an OpenDoc container, the Knife's faithful munchkins report, every OpenDoc engineer on the project has been shanghaied by the flying monkeys at Microsoft. (No word yet on whether Claris' janitorial staff has received similar offers from the Wicked Windows Wonks of the West.)

The Knife's crystal ball remains hazy on whether the ClarisWorks container was half empty or half full when this exodus occurred, and he hesitates to forecast the future direction of the integrated program. Nevertheless, ClarisWorks has long been touted as a cornerstone of Apple's OpenDoc plans, so this mass defection to the Land of OLE does not bode well for Cupertino's component architecture.

Eye for an eye

Meanwhile at the grown-ups' table, Claris' executive cadre is considering some empire-building of its own. In a move that recalls the family values touted in Sophocles' "Oedipus Rex," the company is reportedly preparing to leg-wrestle absentee parent Apple for a chance to purchase Quarterdeck's WebStar server.

A buyout would not come a moment too soon; thanks to scant development resources, the ship date for Version 2.0 of the Mac's most popular Web server keeps slipping faster than the career of Smashing Pumpkins drummer Jimmy Chamberlin.

While we're on the subject of servers, Quarterdeck is just one of the candidates Apple is considering in its headlong rush to drop its own personal Web server like a nasty habit. Besides Chuck Shotton's army and ResNova, Apple has apparently been doing some serious chatting with dark horse Maxum Development, developer of WebServer accelerator Rush Hour. According to the Knife's mole in the furze bush, Apple feels that code changes required to turn this speedy little item into a personal Web server would be minor indeed.

Walk on the Mac side

And speaking of product transvestitism: Storied Wintel huckster Syncronys Softcorp has settled on a cross-dressing strategy for SoftRAM96 for the Mac. According to the lucky few who have peeked beneath Syncronys' skirts, SoftRAM96 will actually be a tarted-up version of OptiMem RAM Charger. (That's the product Jump Development has been failing to sell against Connectix's RAM Doubler since the whole RAM-doubling craze began.)

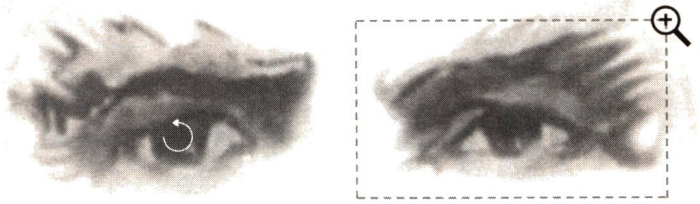
Unnatural Attachmate

Syncronys and Quarterdeck aren't the only companies doing some fancy footwork to justify their continued existence. Attachmate Chairman Frank Pritt spent most of a four-city tour last week explaining why he was taking control of the mainframe-connectivity company after firing the CEO and executive vice president.

The Knife is ecstatic to report that for once the Mac did not serve as a whipping boy for a corporate mogul seeking to assign blame elsewhere. Instead, Pritt pinned the company's flailing fortunes on flaky sales of Win95 products as well as the lack of an Internet strategy. Note to high-tech stock jockeys: An Attachmate IPO is now on indefinite hold. □

Question: What do Lou Reed, Judy Garland and Jimmy Chamberlin have in common? Answer: None of them owns a MacWEEK mug. Drive that tip home at (415) 243-3544; fax (415) 243-3651; mac_the_knife@macweek.com.

The report of my death was greatly exaggerated.
— Mark Twain



Apparently some of our worthy competitors are sufferin' from the misguided notion that Newer is a thing of the past.

It has been widely reported by our esteemed competition that Newer Technology is not much longer for this world. This comes as a great surprise to us, seeing as how, here at Newer, we're enjoyin' record-breakin' memory sales and getting ready to unleash a mighty plethora of Newer-fangled products at MacWorld.

In point of fact, havin' newly reorganized into two divisions, Memory and Value Added Products, we are now in a remarkably stronger position to give these competitive scallywags the thrashin' they so richly deserve.

Our NUpowr™ PowerPC™ Upgrade for 500 series PowerBooks is sellin' impressively. It's also garnered a series of revered press honors: 4 Stars from MacWorld, a 4 Mouse rating from MacUser and 4 Diamonds from MacWeek. And UltraDock™, the ultimate in portable utility for dockable Duos, is acquittin' itself quite proudly as well.

This audacious rumor mongerin' seems all the more confounding when you consider that Newer continues to develop newer and newer products. We're in the business of producin' the very finest quality products to enhance Mac™ models of all persuasions. And we're still the leading supplier of PowerBook peripherals.

True, Chapter 11 is not the most enthrallin' chapter in the story of Newer's rise to prominence. But it is just a chapter. Not the whole story.

The most exhilaratin' chapters are coming up. The ones where we fully recover from the earth-shatterin' impact of falling chip prices. If you don't want to miss a single installment in this inspirin' epic, you'll want to pay a cordial visit to our Website. Every day, if possible. And we'd be honored to have you come and see us at MacWorld Booth #5046 as well.

And if our competitors show up thinkin' they've seen a ghost, well, all we can say is, Boo!

MACWORLD EXPOSITION Booth #5046

Visit our Website to catch the latest information about Newer Technology:
http://www.newertech.com

INNOVATORS IN POWER & PERFORMANCE

Newer® TECHNOLOGY
1-800-678-3726
316-943-0222
Fax: 316-943-0555
e-mail: sales@newertech.com
Website: http://www.newertech.com

YOU KNOW YOU CAN COUNT ON NEWER.

THE COMPANY THAT BROUGHT YOU FAST AND WICKED FAST NOW BRINGS YOU INSANELY FAST.

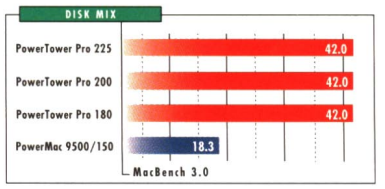
INTRODUCING THE POWERTOWER PRO™ 225 MHz FEATURING THE NEW POWER PC 604E

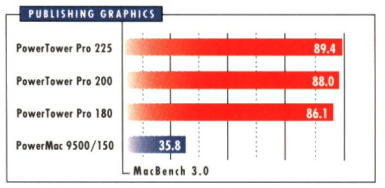
INTRODUCING THE FASTEST DESK

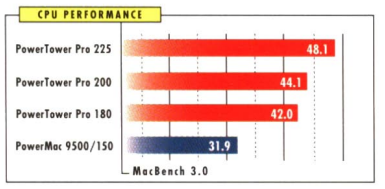
INTRODUCING THE POWERTO

SIX PCI SLOTS. INTERLEAVED MEMORY. DUA

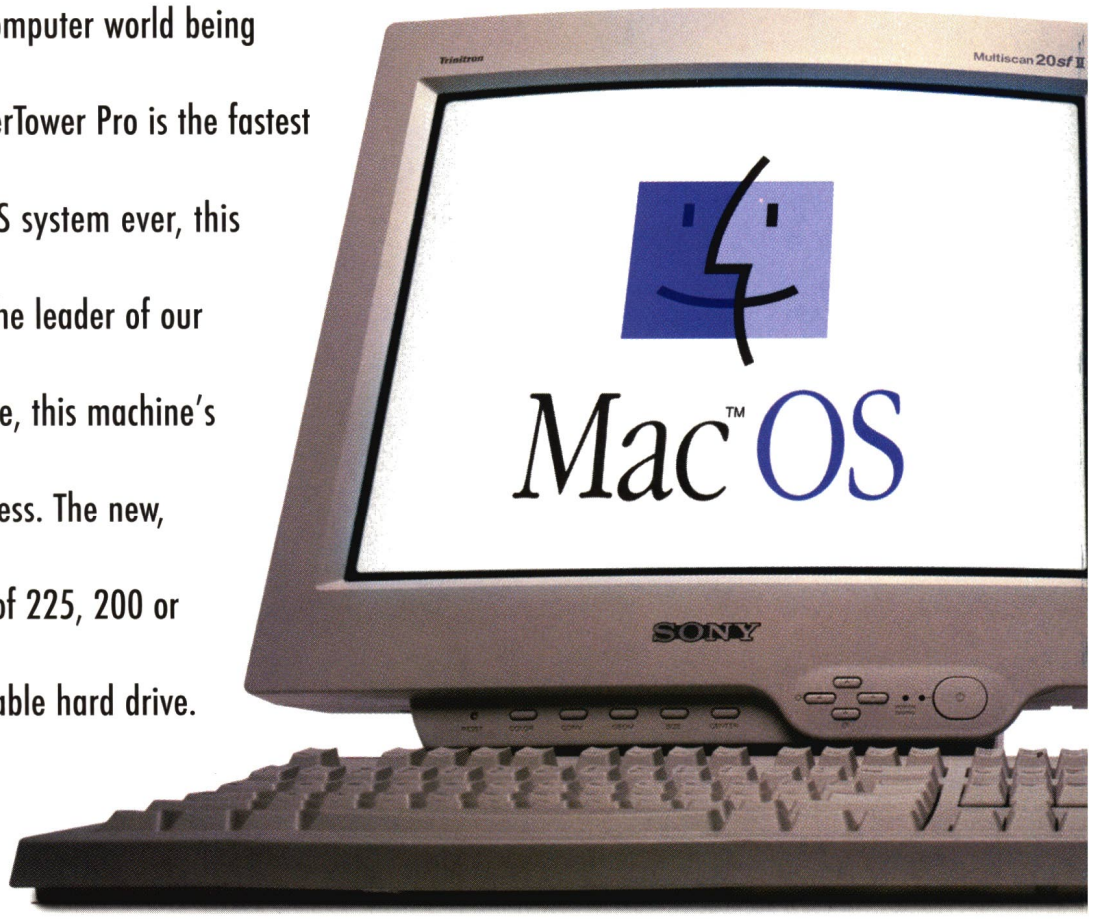
Listen closely and you can almost here the sound of the computer world being floored. Considering the PowerTower Pro is the fastest and most expandable Mac OS system ever, this response is quite natural. As the leader of our already impressive product line, this machine's strengths are virtually boundless. The new, PowerPC 604e CPU at speeds of 225, 200 or 180 MHz. A 7200 RPM AV-capable hard drive.







A huge 1 MB Level 2 cache. Dizzying 8X CD-ROM. Dual (fast internal 10 MB/second) SCSI. 8 DIMM slots.



"IF YOU REQUIRE MAXIMUM PERFORMANCE, NO CURRENT APPLE SYSTEM CAN TOUCH THE POWERTOWERS."
— MacWEEK Magazine 4.29.96 ♦♦♦♦

"POWER LEAPFROGS APPLE - AND EVERYONE ELSE - WITH THE FASTEST-EVER DESKTOP COMPUTER." ★★★★★
— MacUser Magazine Sept '96

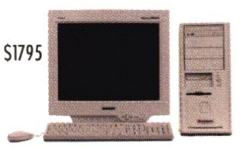
"HANG ON TO Y
— MacW

PowerTower Pro 225AV
225MHz PowerPC 604e Processor
- 32 MB RAM (1 GB Max)
- 2 GB 7200 RPM AV Hard Drive
- Iomega 1 GB Jaz Removable w/Cartridge
- 8X CD-ROM Drive
- 1 MB Level 2 Cache
- IMS Twin Turbo 128M graphics accelerator with 8MB VRAM
- Miro DC-20 Full Screen, Full Motion S-Video In/Out PCI Video Card w/Adobe Premier LE
- 6 PCI Expansion Slots
- Interleaved Memory
- 9 Drive Bays
- Dual (Fast 10 MB/Sec) SCSI
- Connectix Speed Doubler

$6214

PowerTower Pro 225 Starter
225MHz PowerPC 604e Processor
- 16 MB RAM (1 GB Max)
- 2 GB 7200 RPM AV Hard Drive
- 8X CD-ROM Drive
- 1 MB Level 2 Cache
- IMS Twin Turbo 128M graphics accelerator with 8MB VRAM
- 6 PCI Expansion Slots
- Interleaved Memory
- 9 Drive Bays
- Dual (Fast 10 MB/Sec) SCSI
- Connectix Speed Doubler
- Add 20" Sony Trinitron Monitor $1795
- Extended Keyboard and Mouse

$4995

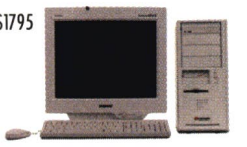


PowerTower Pro 200 Starter
200MHz PowerPC 604e Processor
- 16 MB RAM (1 GB Max)
- 2 GB 7200 RPM AV Hard Drive
- 8X CD-ROM Drive
- 1 MB Level 2 Cache
- IMS Twin Turbo 128M graphics accelerator with 8MB VRAM
- 6 PCI Expansion Slots
- Interleaved Memory
- 9 Drive Bays
- Dual (Fast 10 MB/Sec) SCSI
- Add 20" Sony Trinitron Monitor $1795
- Connectix Speed Doubler
- Extended Keyboard and Mouse

$4495

PowerTower Pro 180 Starter
180MHz PowerPC 604e Processor
- 16 MB RAM (1 GB Max)
- 2 GB 7200 RPM AV Hard Drive
- 8X CD-ROM Drive
- 1 MB Level 2 Cache
- IMS Twin Turbo 128M graphics accelerator with 8MB VRAM
- 6 PCI Expansion Slots
- Interleaved Memory
- 9 Drive Bays
- Dual (Fast 10 MB/Sec) SCSI
- Add 20" Sony Trinitron Monitor $1795
- Connectix Speed Doubler
- Extended Keyboard and Mouse

$4195

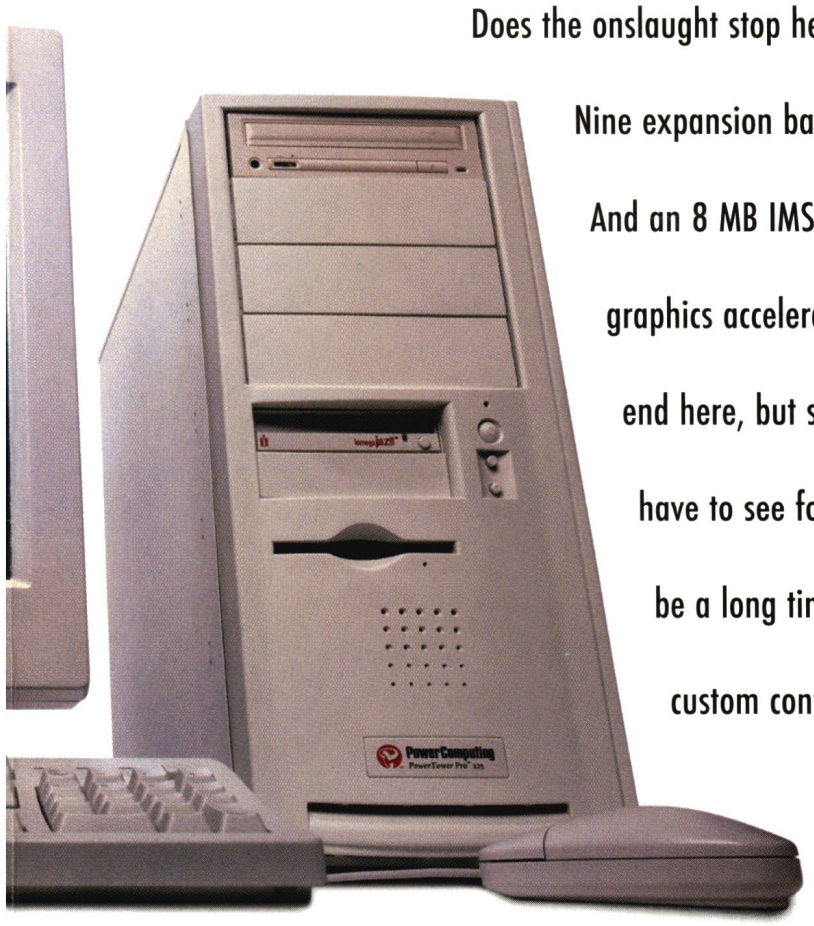


ORDER YOUR SYSTEM DIRECT BY CA

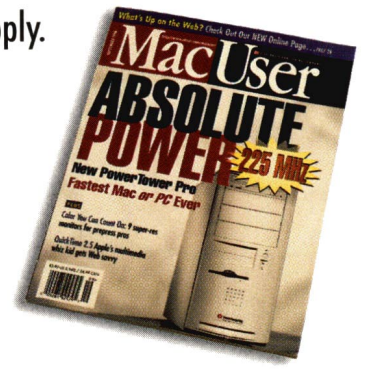
Apple, Macintosh and Mac are registered trademarks, and the Mac OS logo is a trademark of Apple Computer, Inc. PowerTower and PowerCenter are registered trademarks of Power Computing Corporation. All other brand and

TOP ON ANY PLATFORM.

WER PRO™ 225 MHz.
L FAST SCSI. 8X CD-ROM. FIVE MICE.



Does the onslaught stop here? No! Dual processor capability. Six PCI slots. Nine expansion bays. A 300w power supply. And an 8 MB IMS Twin Turbo 128 bit graphics accelerator. The list doesn't end here, but some things you just have to see for yourself. Sure there will be followers, but it'll be a long time before anyone even gets close. Call now to custom configure your dream system.



PowerComputing™

CONFIGURE YOUR DREAM SYSTEM THE WAY YOU WANT IT WITH ANY OF THESE GREAT OPTIONS:

- IOMEGA 100MB ZIP JUST $159 MORE
- ULTRA SCSI/RAID SOLUTIONS
- IOMEGA 1GB JAZ JUST $399 MORE
- 28.8 MODEM & INTERNET KIT $195
- MACROMEDIA BUNDLE
- MICROSOFT OFFICE
- MIRO AV SOLUTIONS AVAILABLE FOR ALL POWER SYSTEMS.

GET $1,200 WORTH OF FREE SOFTWARE WITH EVERY POWER COMPUTING SYSTEM.

OUR HAT."
ORLD MAGAZINE SEPT. '96

"POWER HAS THE CLEAR AND UNDISPUTED EDGE OVER APPLE IN BOTH PRICE AND PERFORMANCE. YOU WANT A POWERTOWER PRO."
— MACUSER MAGAZINE SEPT '96

Configure it any way you want it.

PowerTower Pro 166AV
166MHz PowerPC 604 Processor
- 32 MB RAM (1 GB Max)
- 2 GB 7200 RPM AV Capable Hard Drive
- Iomega 1 GB Jaz Removable w/Cartridge
- 4X CD-ROM Drive
- 1 MB Level 2 Cache
- 2 MB VRAM On-Board (4 MB Max)
- Miro DC-20 Full Screen, Full Motion S-Video In/Out PCI Video Card w/Adobe Premier LE
- Connectix Speed Doubler
- Desktop Enclosure
- Extended Keyboard and Mouse
- $1,200 in Bundled Software

$4955

PowerCenter 132 AV
132MHz PowerPC 604 Processor
- 24 MB RAM (256 MB Max)
- 2 GB 7200 RPM AV Capable Hard Drive
- 4X CD-ROM Drive
- 512K Level 2 Cache
- 2 MB VRAM On-Board (4 MB Max)
- Miro DC-20 Full Screen, Full Motion S-Video In/Out PCI Video Card w/Adobe Premier LE
- Add Internal Iomega Zip Drive $159
- Add 15" Sony 15sx Trinitron Monitor $425
- Extended Keyboard and Mouse
- Desktop Enclosure
- $1,200 in Bundled Software

$3639

PowerCenter 132 Starter
132MHz PowerPC 604 Processor
- 16 MB RAM (256 MB Max)
- 1 GB Hard Drive
- 4x CD-ROM Drive
- 512K Level 2 Cache
- 1 MB VRAM On-Board (4 MB Max)
- 3 PCI Expansion Slots
- Desktop enclosure
- Extended Keyboard and Mouse
- $1,200 in bundled software
- Add 28.8 Modem & Internet Kit $195
- Add Internal Iomega Zip Drive $159
- Add 15" Sony Trinitron 15sx $425

$2495

SERVICE & SUPPORT
- 30 day money back Guarantee
- Toll-free lifetime technical support
- 1, 2, or 3-year on-site service available, starting at $49.

LLING 800-404-7693

http://www.powercc.com
2555 North IH 35, Round Rock, TX 78664-2015
Tel. 512/388-6868 Fax. 512/388-6799
Internet: info@powercc.com

/or product names are the property of their respective holders. Prices and specifications are valid in the U.S. only and are subject to change without notice.

GREAT MACINTOSH PRODUCTS FROM COREL

Coming This Summer.. COREL DRAW! 6 for the Macintosh

COREL

SUPER TEN

ROYALTY-FREE HIGH-RESOLUTION PHOTO PACKS

Each Corel® Professional Photos on CD-ROM Super Ten Pack contains 1,000 colorful and captivating images for you to enjoy.

Titles:

1. Animals
2. People
3. Select Photos
4. Great Works of Art
5. Food
6. Cars
7. Aircraft
8. Gardens
9. Underwater
10. Textures
11. Textures II

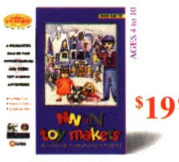
$37.98* Each

$19.98*

Wild Board Games™
The fun way to learn popular board games
For Macintosh® and Windows® 3.1

$19.98*

Red Rhino™
Read, color and search for the balloon with Red Rhino
For Macintosh® and Windows® 3.1

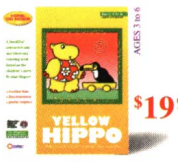


$19.98*

NN 'n N Toy Makers™
An interactive toy making adventure
For Macintosh® and Windows® 3.1

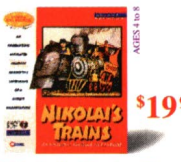
$19.98*

Green Bear™
Read, color and decorate with Green Bear
For Macintosh® and Windows® 3.1



$19.98*

Yellow Hippo™
Read, color and hunt for yellow items with Yellow Hippo
For Macintosh® and Windows® 3.1



$19.98*

Nikolai's Trains™
An interactive journey across the landscape of a child's imagination
For Macintosh® and Windows® 3.1

$19.98*

Blue Tortoise™
Read, color and race to the picnic with Blue Tortoise
For Macintosh® and Windows® 3.1

$19.98*

Wild Cards™
The fun way to learn popular card games
For Macintosh® and Windows® 3.1

$19.98*

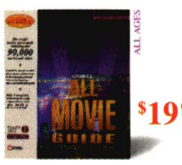
The Interactive Alphabet™
The imaginative way to learn your ABC's
For Macintosh® and Windows® 3.1

$19.98*

Turn Around Turtle:™ Show and Tell
Go on an adventure with Turn Around Turtle
For Macintosh® and Windows® 3.1

$19.98*

Pandora's Box™
Learn the wonders of Greek mythology through Pandora's Box
For Macintosh® and Windows® 3.1

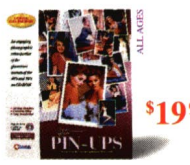


$19.98*

All-Movie Guide™
The ultimate guide to the movies
For Macintosh®, Windows® 3.1 and Windows® 95

$19.98*

Bernard of Hollywood's™ Marilyn
A multimedia journey through the life of Marilyn Monroe
For Macintosh® and Windows® 3.1



$19.98*

Bernard of Hollywood's™ Pin-ups
A multimedia retrospective of Hollywood's most famous pin-ups
For Macintosh® and Windows® 3.1

$37.98* Each

Corel® CD HOME Super Ten Pack Series
Ten great titles in each pack for one amazing price
For Macintosh® and Windows® 3.1

$64.98*

Gallery™2 for Mac
The world's best CD-ROM clipart...and more

$899.98* Each

Corel® Stock Photo Library 1, 2 & 3
20,000 royalty-free, high-resolution photos on 200 CD-ROMs in each library

$18.98* Each

Corel® Professional Photos on CD-ROM
The world's leading photo CD-ROM collection

Enter the Corel $3,000,000 World Design Contest!
(September '95 to July '96)
To receive a faxed copy of the contest rules and an entry form, please call:
1-613-728-0826, ext. 3080, Document # 1125.
To leave a message: 1-613-728-0826, ext. 81609.
To send a fax: 1-613-728-2891.

The Mac Zone™ Your Catalog SuperStore

1-800-248-0800

Please refer to source code CR35.

KUR-0235-US

*US$ plus applicable taxes.

COREL

http://www.corel.com
Call now for faxed literature!
1-613-728-0826 ext. 3080
10,000,000 CD-ROMs shipped!

Corel is a registered trademark of Corel Corporation. All-Movie Guide is a trademark of Matrix Software Inc. Bernard of Hollywood's is a trademark of Renaissance Roads Productions, Inc. and is used under license. Blue Tortoise, Green Bear, Red Rhino and Yellow Hippo are trademarks of Alan Rogers. Nikolai's Trains and NN 'n N Toy Makers are trademarks of I. Hoffmann + Associates Inc. Windows is a registered trademark of Microsoft Corporation in the United States and/or other countries.
Macintosh is a registered trademark of Apple Computer, Inc. All product and company names are trademarks or registered trademarks of their respective companies.